The Bristol

Medico-Chirurgical Journal.

SEPTEMBER, 1896.

THE CAUSATION AND TREATMENT OF SUDDEN DYSPNŒA IN GOITRE.

WITH REPORT OF A CASE IN WHICH THE MIDDLE LOBE OF THE THYROID WAS EXCISED FOR SUCH A CONDITION.

BY

CHARLES A. MORTON, F.R.C.S. Eng.,

Surgeon to the Bristol General Hospital.

A PERSON suffering from goitre, who has no dyspnœa or only a very moderate degree of it, may have a sudden and urgent attack, which may be very quickly fatal. There are various theories to account for this, but none of them seem very satisfactory. If hemorrhage has taken place into the goitre, or from the goitre into the tissues around—a condition found in a few of the cases,—we can readily understand how the sudden increase in size will produce the rapid exacerbations of dyspnœa; but such hemorrhage is very rarely found in these cases.

The theory of E. Rose[1] is founded on pathological data. He found that from the pressure of the enlarged thyroid the rings of the trachea were rendered soft and flaccid, so that after dissecting off all the other structures from the larynx and

[1] *Arch. f. klin. Chir.*, 1878, xxii., xxiii.

trachea, and then placing it upright, it gave way and bent so sharply that its lumen became completely closed. He believes that in these cases of sudden dyspnœa the trachea becomes kinked in the same way from relaxation—either during sleep or anæsthesia—of the muscles, which hold the head in such a position as to keep the tube open. But these cases do not always occur during sleep or anæsthesia, nor does relaxation of the muscles during sleep generally bring on the very urgent dyspnœa. Moreover, if it were only a question of the position of the neck, such cases would soon get relief by a change of position. They would very quickly discover they were easier by turning the neck a little more one way than another, and would relieve themselves. I have myself dissected the trachea in one case of sudden fatal dyspnœa, without discovering any softening in the rings. Mr. James Berry,[1] who has examined a very large number of specimens of goitre, has never seen this tracheal softening which Rose described; but in a case reported by Mr. C. H. Tayler,[2] the cartilaginous rings were softened and partially absorbed.

Dr. Hurry's theory of the vicious circle is very ingenious, but does not seem to me quite sufficient. He thinks that some unusual exertion may start a little dyspnœa, then that the sterno-mastoid, sterno-hyoid, and sterno-thyroid, as extraordinary muscles of respiration, come into play, and by their contraction still further press the thyroid lobes against the trachea. But these attacks are not always started by unusual exertion, and I do not think we can regard all these muscles as likely to be so active as extraordinary muscles of respiration in dyspnœa, as to seriously press a goitre against the trachea. Indeed, I doubt if the two latter could be counted as extraordinary muscles of respiration at all.

Bristowe attributed the sudden dyspnœa to inflammatory swelling and œdema of the mucous membrane. But the dyspnœa is not usually associated with symptoms of laryngeal catarrh, and there is nothing to suggest such a change in the mucous membrane.

[1] *Tr. Path. Soc. Lond.*, 1890, xli. 265. [2] *Lancet*, 1890, i. 598.
[3] *Lancet*, 1887, i. 570.

We know that although both the adductors and abductors of the cords are supplied by the recurrent laryngeal nerve, yet a lesion of the nerve may paralyse only the abductors, and hence lead to urgent dyspnœa if bilateral. Can pressure, then, on the recurrent laryngeals by the goitre be the cause of the urgent dyspnœa? The onset of the dyspnœa seems to me too sudden to be due to pressure of a goitre on the nerves. Moreover, relief cannot be obtained by opening the air-passages below the glottis, but above the goitre, as Dr. Hurry's case, before referred to, shows; and in my case two severe paroxysms came on after the laryngotomy. In the dissection of a specimen of goitre, which caused a sudden attack of fatal dyspnœa (to which reference has been made), I found one recurrent laryngeal nerve unaffected; the other had not been removed from the body before the specimen was sent to me for examination.

Patients with goitre may be going about as usual, and yet have so small a channel left for air to enter that any sudden demand for an unusual amount can scarcely be met, and hence the sudden urgency of the symptoms.[1] There is a case recorded by Jacobson[2] where sudden and fatal dyspnœa set in, apparently from fright. A woman woke up and saw her child carrying a lighted piece of wood about the room; urgent dyspnœa set in and she died. This would seem to be a case where the dyspnœa was due to some effect on the nervous system; but we must not forget that in fright the attention is fixed and the breath is held for a time, and then as the attention is relaxed the breathing is unduly rapid and full for a few seconds. Now, it seems to me that in this case the lumen of the trachea may have only just been large enough for natural breathing, and the need for increased air-entry after temporary suspension of breathing during the fright have proved too much for its capacity. In another case recorded by Jacobson,[3] where a woman with goitre died of sudden dyspnœa during labour, the explanation may be

[1] A case is recorded by Finley (*Lancet*, 1894, ii. 689) where, although only stridor was present, the trachea was found much flattened and compressed.

[2] *The Operations of Surgery*, 2nd Ed., 1891, p. 435. [3] *Ibid.*

the same: the bearing-down effort requires that the breath shall be held, and this would necessitate rapid and full breathing in the intervals, which the narrowed lumen of the trachea was perhaps unable to allow. But to support the view that the dyspnœa in these cases is due to some sudden extra demand for a larger air entry than the narrowed trachea can allow, there ought to be a history of some occurrence which usually makes people "out of breath" in all the cases; and there certainly is not, possibly because the histories are defective. In some of the cases the urgent dyspnœa came on when, so far as we know, the patient was lying quietly in bed.

A man, T. H., aged 20, came to the Bristol General Hospital under my care on May 20th, 1895, with the history that for three years there had been some enlargement of the thyroid, which had rapidly increased during the previous fortnight. All his life he had been in Bristol. He worked as a silversmith. His breathing had disturbed him at night, but there had been no attacks of urgent dyspnœa. There had not been any attack of dysphagia or giddiness. Marked tracheal stridor was present, which he said was increased by exertion, but walking up and down the ward did not increase it. There was considerable uniform enlargement of the whole thyroid. The isthmus covered the front of the trachea from the episternal notch to the cricoid cartilage, and seemed to have pushed the cricoid nearer to the thyroid cartilage than normal. The lateral lobes extended widely out under the sterno-mastoids. The right carotid was pushed out to the posterior border of the sterno-mastoid. There was no pulsation in the goitre, which felt firm. He was admitted as I considered that urgent dyspnœa might come on at any time. Ten-grain doses of iodide of potassium were prescribed, together with the local application of iodine ointment.

During the night of the 22nd there was a marked increase of the stridor, and his breathing was so laboured that he could not lie down. When I saw him at midday on the 23rd the stridor had much increased since admission; but when standing up, or lying down even when the head was raised, there was no urgent dyspnœa. I decided to do thyroidectomy on the following day. At

eight p.m. that evening, when Dr. Firth—who was then House Surgeon—saw him, he was all right; but between nine and ten Dr. Firth was sent for, and found him cyanosed and unconscious. He performed laryngotomy and passed a large-sized gum elastic catheter down the trachea. The cyanosis passed off, but the breathing remained considerably obstructed. When I saw him, just before eleven o'clock, he was conscious, but not taking notice of what was going on around him. His colour and pulse were very good. On stopping up the catheter he breathed as well as before, so I removed it. I decided to excise the thyroid isthmus. Moving him up to the theatre did not increase the dyspnœa, but as soon as the administration of chloroform was commenced his breathing failed, he became of a dull leaden colour, and his pulse flagged. I got a long cannula (used for suprapubic puncture of the bladder) down the trachea, and very slowly he began to take deep, whistling inspirations through it. His colour did not improve at first, but gradually his breathing became more frequent, and then it slowly became normal. I then made an incision from the entrance of the cannula in the crico-thyroid space down to the episternal notch, and after avoiding some large veins and tying others, I reached the isthmus, which was of a dark mahogany colour, and as the fascia over it was divided, it bulged into the wound. There was a well-marked constriction where it joined the left lateral lobe. I then put two parallel silk ligatures around the junction of the isthmus and left lateral lobe, and divided the gland between them. The ligature on the isthmus slipped off, the mass of tissue being so great, and I had to catch and tie several vessels. I then ligatured the junction of the isthmus and right lateral lobe by transfixing the gland with an aneurysm needle and using two double parallel silk ligatures. The isthmus was then removed without further hemorrhage. The portion of gland excised was slightly more than one inch in width. The trachea was found to be of the typical keel-like shape, from compression of the lateral lobes, from the cricoid cartilage to well below the episternal notch. I separated it freely from the lateral lobes of the thyroid with a blunt instrument, and divided all the fascia over it. So great was the general enlargement of the

gland that the cut surfaces met over the trachea, although an inch of the median portion had been excised. The hemorrhage during the operation was never serious. I irrigated the wound freely with carbolic lotion at the end of the operation, because of the presence of the laryngotomy opening, and united the edges with fishing-gut sutures, leaving a small drainage tube in the episternal notch. Once during the operation his breathing began to fail and he got very cyanosed, although he had the cannula in the trachea. I was tying some vessels in the cut surface of the isthmus at the time. All through the operation, and indeed until I left the hospital at 1 a.m., he remained quite unconscious, though his colour and pulse, with the one exception recorded, remained good. A large-sized catheter was left in the trachea. Microscopic examination of the portion of gland excised shows the enlargement to be of the ordinary parenchymatous kind.

For many days after the operation, in a quarter to half-an-hour after the removal of the catheter his voice began to fail, and he said he felt a suffocating feeling coming on, so that the catheter had to be replaced. I was able to leave it out for an hour a fortnight after the operation, and three days later it was left out for nearly a week, when the breathing became laboured and it had to be replaced for a few days longer; and then another attempt was made to do without it, but again it was required at night. It was finally dispensed with a month after the operation. Three days after the operation he got pneumonia of the lower two-thirds of the right lung; the signs of consolidation persisted for several weeks, but the continuously high temperature of 101° to 103° lasted for only three days, though it was followed by an evening rise of two or three degrees for some days longer. The thyroid was first observed to have decreased in size a fortnight after the operation, but at that time the diminution was very slight; a month later it was very marked, the left lobe being hardly palpable. Two months after operation there was very little enlargement left in either lobe, and a month later only a diffuse fulness in the thyroid region. He was able to be up three weeks after the operation, and was discharged three weeks later. The wound suppurated

and healed by granulations. It was infected by the laryngeal opening. Six months after the operation he could run upstairs without any dyspnœa, and his breathing never again became laboured or stridulous. In May, 1896, there was only very slight fulness of the right lateral lobe. His voice was hoarse. Dr. Baron kindly examined the larynx and reported it normal. Possibly the hoarseness may be due to interference with the action of the crico-thyroid muscle by the cicatrix in the crico-thyroid membrane.

In this case the sudden exacerbation of dyspnœa occurred while the patient was lying in bed. After opening the air-passage above the goitre and passing a tube down the trachea it was relieved, and by the time I saw him he no longer depended on the tube for air-entry, as he breathed as easily when I plugged it. The cause of the paroxysm was no longer in operation. But a few whiffs of chloroform started the extreme dyspnœa again, and later on during the operation it started without any apparent exciting cause. The chloroform may have acted as the sudden fright did in the case I have referred to—made him hold his breath, until deeper, fuller breathing was required to compensate, of which his narrowed air-passage was incapable. But why, with the cannula in, did dyspnœa come on during the operation? The time which elapsed before the catheter could be dispensed with was very long. Possibly those degenerative changes in the rings of the trachea had taken place to which reference has already been made, and the tube tended gradually to collapse after the support of the catheter was withdrawn. The case shows that excision of the isthmus alone is not always sufficient to relieve these cases, as the catheter had to be retained for weeks after the operation.

A most instructive case bearing on this is recorded by Mr. F. Marsh, of Birmingham.[1] A girl aged 15, with a history of six months' goitre, in which the enlargement was uniform, had for several weeks marked dyspnœa, and "on one or two occasions she had almost been suffocated." The central portion, with a part of each lateral lobe, was resected. It was found that "lateral pressure had almost completely closed the lumen,

[1] *Birmingh. M. Rev.*, 1894, xxxvi. 271.

and patency had probably only been maintained by the antero-posterior counter pressure of the central part. As the pressure was removed the breathing became worse, and on completion of the excision asphyxia was imminent, the inspiratory efforts completely closing the trachea which seemed to have lost all power of expansion." Tracheotomy was performed, the largest tube available being only just sufficient. The remaining portions of the lateral lobes atrophied as the result of the excision of the isthmus. The operation was on November 20th, and the tube could not be dispensed with until the end of January, and then some dyspnœa and stridor persisted, and these did not disappear for a month later.

Another very similar case is recorded by Stevenson,[1] but the dyspnœa was greater at the time of operation. The patient was a girl, aged 16, who had suffered from goitre for two years, and dyspnœa for a fortnight. At the time of operation dyspnœa was intense, and was accompanied by cyanosis and stridor; and loss of consciousness was present for a few minutes, every now and again. The isthmus was removed, without any relief to the breathing; but after the removal of one lateral lobe as well, the dyspnœa at once greatly lessened and the girl recovered. Another case, in which the isthmus was only divided, occurred at St. Thomas's Hospital.[2] Only slight stridor was present, with a goitre of a year's duration, in a patient of the same age as the last. The isthmus was ligatured in two places and divided. Marked dyspnœa lasting several days followed the operation, and had not entirely disappeared on her discharge; and increasing again, did not subside until one lateral lobe had been excised. Berry[3] also records a case, under the care of Mr. Langton, in St. Bartholomew's Hospital, in which no relief to urgent dyspnœa in a case of goitre was obtained by division of the isthmus. In the cases operated on by Mr. Holthouse,[4] Mr. Sydney Jones,[5] Mr. Jacobson,[6] and Mr. Harsant,[7] although dyspnœa was present before operation, it was not urgent enough

[1] *Lancet*, 1891, i. 1378. [2] *St. Thomas's Hosp. Rep.*, 1894, xxii. 255.
[3] *Birmingh. M. Rev.*, 1890, xxvii. 327. [4] *Lancet*, 1875, i. 120.
[5] *Lancet*, 1883, ii. 900. [6] *Op. cit.*, p. 453.
[7] *Bristol M.-Chir. J.*, 1888, vi. 269.

to demand immediate operative interference for its relief. It disappeared after the operation, but whether as the result of the division of the isthmus or the secondary atrophy of the lateral lobes it is difficult to judge from a study of the records of the cases. Indeed, in Mr. Sydney Jones's case, one of the attacks of dyspnœa to which the patient was subject came on the day after the isthmus had been excised. It is a curious fact that the operation of excision of the isthmus was first advocated by Sir Duncan Gibb,[1] in 1875, *for the relief of dyspnœa* in bronchocele, and this is the symptom which, at any rate in urgent cases, it has again and again failed to relieve. Although from a fatal case of his own he had observed that the lumen of the trachea was reduced to a narrow fissure, obviously from pressure of the lateral lobes, yet he laid great stress on removal of the isthmus to relieve the dyspnœa. The narrowing is always lateral, from pressure of the lateral lobes—the lumen being reduced in extreme cases to an antero-posterior slit. Berry, who has examined a very large number of specimens of goitre, writes very strongly on this point. He says[2]: "I venture to formulate a rule to which I know of no exception: that the effect produced upon the shape of the trachea by a goitre of this kind namely, general uniform enlargement of the gland, is of one kind, and one only—that is, bilateral flattening." Amongst all the specimens of goitre in twenty-one pathological museums that Berry has examined, he has only discovered four cases of antero-posterior flattening, and he says that in none of these had there been any serious dyspnœa.[3] Hence it is evident that the isthmus does not itself press on the trachea so as to cause urgent dyspnœa, though a cyst formed in connection with it may do so, as in Bowlby's case, where the cyst was substernal and the trachea flattened from before backwards.[4] Does the isthmus, then, bind the enlarged lateral lobes against the sides of the trachea, and would its division or excision allow them to separate and thus relieve the dyspnœa? In my case, after excision of more than an inch of the median part of the gland, the lateral lobes came together in the middle line. Berry[5] has also observed this in one case.

[1] *Lancet*, 1875, i. 120. [2] *Tr. Path. Soc. Lond.*, 1890, xli. 265.
[3] *Birmingh. M. Rev.*, 1890, xxvii. 325. [4] *Lancet*, 1895, i. 1118.
[5] *Birmingh. M. Rev.*, 1890, xxvii. 324.

Hence it is evident that the isthmus does not hold the lateral lobes pressed against the trachea, but rather tends to keep them apart. This is, I believe, the explanation of the fact that dyspnœa is not relieved but rather increased by removal of the isthmus. What, then, should be done to relieve the urgent dyspnœa in these cases? The trachea will probably be so covered by the enlarged gland that tracheotomy below the isthmus will be impossible. A case is recorded by Tayler[1] of urgent dyspnœa in what appears to have been an ordinary goitre, in which tracheotomy was performed so low down that the aorta was felt pulsating, but the greatest difficulty was experienced in finding the trachea. A tracheotomy tube could not be introduced, and a catheter was used. The dyspnœa was relieved, but the patient died two days after of pneumonia. In another case recorded by Frost,[2] tracheotomy low down after partial division of the isthmus seems to have prevented death from an attack of urgent dyspnœa, but the goitre was of only moderate size.

Looking at the impossibility in most cases, and the enormous difficulty in others, of reaching the trachea below the isthmus, it would seem better to open the air-passage above, and pass a long cannula or catheter down the trachea past the obstruction if possible. If we could get room between the isthmus and the cricoid cartilage, so much the better; but if not, we must perform laryngotomy. We are almost certain not to have any suitable cannula at hand, and a large-sized gum elastic catheter answers quite well. The end should be cut off so as to form a terminal opening, and the stylet bent over the mouth so that it cannot protrude from the cut end and wound the trachea. I do not think we could expect to get a cannula (such as Annandale suggested) or catheter down the narrowed and perhaps deviated trachea, through the mouth and glottis, though such a method has several times relieved urgent dyspnœa when the obstruction has been at the glottis. The dyspnœa is far too rapidly fatal in many of these cases for excision of one lateral lobe to be undertaken for its relief, and excision of the isthmus alone we have seen to be useless. If the goitre is mainly

[1] *Lancet*, 1890, i. 598. [2] *Lancet*, 1890, ii. 446.

substernal, then a tracheotomy above the isthmus and an attempt to pass the catheter into the right bronchus seems the best measure we can adopt. After we have relieved the urgent dyspnœa by a laryngotomy and the passage of a catheter down the trachea, the question will arise as to the best form of excision to be undertaken. As we shall have a septic wound from the laryngotomy, we cannot expect an aseptic course in our thyroidectomy wound, and hence removal of the isthmus alone, which is a less serious operation than excision of one lateral lobe, and does not open up the structures of the side of the neck to the same degree, might with advantage be practised. Excision of the isthmus is nearly always followed by atrophy of the remaining portions of the gland.

When I performed the operation in my case, I must say I shared the general belief that it might at once relieve the dyspnœa and enable me to dispense with the catheter in the trachea; and I find it is recommended in the latest text-book of Surgery—a work published during the present year—as the best treatment for the urgent dyspnœa of goitre.

Berry has suggested[1] that division of the isthmus causes diminution in the size of the goitre by allowing the colloid secretion of the thyroid to drain away. This colloid material has been known to exude from the wound or form a collection of viscid fluid within it. But whether exudation from the cut surfaces could drain the whole goitre of colloid material seems a doubtful matter.

As urgent dyspnœa is most common in rapidly enlarging bronchoceles, when the fascia of the neck has not had time to stretch, it has been suggested that its division along the median line of the neck may give relief, the lateral lobes being thus to a certain extent freed from the compression against the trachea. Probably opening the air-passage above the goitre and passing a catheter beyond the obstruction would be more likely to succeed.

It must be remembered that compression of the trachea by a unilateral goitre always means compression by a cyst or adenoma of the thyroid, and not by ordinary goitre, and that if

[1] *Birmingh. M. Rev.*, 1890, xxvii. 327.

a cyst is present the dyspnœa might be satisfactorily relieved by its drainage if very urgent, or by its removal if less so. Urgent dyspnœa from an adenoma would require the same treatment as from ordinary goitre, but if time would allow, the adenoma could be excised.

A CASE OF HYSTERO-EPILEPSY.

BY

BONVILLE B. FOX, M.A., M.D. Oxon.

THE claims of this case for report appear to me to rest: (1) on the unusual character, especially in the male sex, of its symptoms; (2) on the varying interpretation physicians have placed on those symptoms. These remarks refer exclusively to the physical phenomena. There was nothing in the mental symptoms calling for any special notice.

The subject was an unmarried man, aged 31, who had been farming in the Colonies for some time past.

Family History.—His father suffered from queer kind of seizures, in which he turned pale, lost consciousness, and uttered a cry, suggesting epilepsy; while there was a more vague notion that a maternal aunt had fits

Previous History.—He has been steady and sober, free from syphilis, rheumatic fever, or chorea, and if not sharp at school, not conspicuously the reverse. In disposition he was perhaps rather uncertain, a little prone to be solitary and to sulk. There is an ill-defined history of an anomalous kind of fit twenty years ago. Till about September, 1891, he had enjoyed good health. Then, while working on a hay cart in America, he suddenly fell down, got up, but again fell down, this time unconscious. He was taken to a hospital, and when consciousness returned some paralysis was found. He remained in the

hospital for more than six months, very much in the same state, was pointed out as a very interesting case, given any quantity of iodide of potassium, and finally discharged as incurable. During the voyage home it appears that he was able to move about so freely that his fellow-passengers hardly realised that he was an invalid, and this continued after he reached home. He could go up and down stairs, but was liable to collapse suddenly and completely, and at all times, however well he was moving, any sudden excitement would reduce him to helplessness. He had been liable to lose the thread of his conversation and to become confused for some time past.

On September 7th, 1892, when he was unusually bright and jolly, he suddenly burst out into violent laughing and sobbing, and soon became so violent and maniacal that he had to be tied down, and so remained until brought to Brislington House Asylum. On the night he arrived he was fed by the stomach tube; but his stomach rejected everything, and nourishment had to be administered by the rectum. The catheter was necessary. Examination of the urine and the organs generally returned negative results. Temperature normal. Forehead rather low and sloping. Palate arched. Pupils fixed, not reacting to light. He slept a great deal, and while sleeping there was considerable oscillation of both eyelids, but no other tremor. Immediately, however, on waking, tremor of the whole body began. When he attempted to take food or to answer questions strange attacks were induced. He lost self-control, rolled over and over, invariably towards the right side, and burst out into loud hysterical laughter, and at first vomited the food he had recently taken, while there was considerable jactitation both of body and limbs. This after a time passed away, and he at once went to sleep. The same thing occurred when he was touched, and especially when being washed, and he was so hyper-æsthetic that this operation seemed to give him real pain. The whole body became quite rigid during the fit. He was unable to stand; his legs were somewhat emaciated, his feet extended—somewhat resembling the posture of equino-varus,—the patellar tendon-reflex was markedly exaggerated on both sides, but there was no ankle-clonus. There was slight paresis of the

right arm, the power of grasping comparing unfavourably with that of its fellow. There was little power of speech, and he indicated that the back of his head was the seat of pain.

He improved under simple treatment, and in three weeks was free from the fits, save at meal times, when they always recurred, though he forgot all about their recurrence. During each of them the whole body became rigid, but the tongue was never bitten, the mouth being kept wide open; sickness sometimes occurred. As regards tremor, distinct nystagmus has been noted; but tremor generally was now absent as long as the patient was quiet, but began at once when he was spoken to, or when he thought he was being watched. He slept a good deal.

On October 6th, just a month after admission, he had a series of fits lasting two and a-half hours, followed by sleep. During the attacks the patient perspired freely; while his penis was in a state of erection. There was not the same rigidity of muscles noted before, and while the left arm was being continually flexed and extended, the right hand was picking at the bedclothes. After one or more fits he always appeared unconscious of anything untoward having happened, but he stated that always beforehand he suffered severe pain on the top of his head.

By the end of October, two months after admission, he had sufficiently regained power to be up and about, the tremor was less, the laughing and violent fits absent, but he complained of cutting pains in the right thigh. But on November 17th, after the usual prodromal headache, he had a series of seizures, and on the 18th a remarkable fit, in which the left arm and leg were thrown into a series of convulsions—at first tonic, then clonic—indistinguishable from those of epilepsy; the tongue was protruded to its fullest extent and was very tremulous. It remained in this position some minutes after consciousness returned, the patient intimating he had lost the power to retract it. There was great twitching of the supra-orbital muscles. Water and a motion had been passed shortly before the fit, but not during its continuance. Afterwards for quite an hour he suffered from marked dyspnœa, and his pulse was very rapid and small. He was unable to speak, but was not truly aphasic, as the idea of

language was intact, and he could indicate his meaning by pointing to the letters. Nor was he strictly aphonic, if, as some authorities state, aphonic patients can whisper. He certainly could not utter a sound. This attack was followed by loss of power in the legs, which kept him upstairs a fortnight. During this time he occasionally had pain in the head associated with dyspnœa and with chokiness (globus), and once with shooting pain in the right eye. Then he did well until January 13th, 1893, when his brother paid him a visit. This was followed by a bad night—a series of laughing fits, pain in the head, inability to articulate or to walk. In a fortnight's time he still had no power in his legs; he could grip well with his hands, but could not speak. By February 9th, about a month from the attack, he was able to walk and to speak, the latter not quite well. It is now noted that the knee-reflex is natural on the left side, though exaggerated on the right. He went on pretty well for some weeks, though he complained of a queer feeling at the back of his tongue at meal times, which made him wish to cry out and to stop eating. He occasionally lost his speech after pain on the top of his head, and on several nights had to get up many times to pass water. On the 18th of March he drove into Bristol, and though on starting he was in fair health and able to walk to the carriage, he could not move a step on his return. He quickly regained power, and two days subsequently attended our chapel service, where he had a seizure just like a faint, save that the tongue was greatly protruded, followed by a series of fits with laughter and jactitations, followed in turn by prolonged sleep. The next day he could not speak, but indicated that he had great pain in the head and was sleepy. Attempts at swallowing caused a tendency to recurrence of "fits."

The patient got through the spring and summer fairly well. From time to time he had slight recurrence of the fits, generally induced by overexertion, or by some very trifling excitement such as that caused by his attending a religious service or his being visited by his friends. And, as before, they were followed by inability to speak or to move his legs, which passed off after a longer or shorter time; but in regaining power of locomotion

he passed through a stage in which he did not appear to have full control over his legs, as they are described as "flying about very curiously." He complained, too, of a peculiar feeling at the base of the tongue, of a sense of constriction round the waist, and of shooting and dragging pains in the right leg, and of pins and needles in both hands. There was no anæsthesia, but he often said that his right side was cold, and any exertion caused the most intense pain on the top of his head, described as "sickening."

Early in November he was seen by some of the official visitors, and in consequence of an unguarded and uncomplimentary remark from one of them he was made very ill. He fainted instantly, and was with difficulty brought round. Later in the day this was followed by laughing fits with jactitation. The next day he could not move his legs or speak, although he quite knew what was said to him and what he wanted to say. In five weeks' time he was able to speak, but this return of articulation was transient, and vanished again without any renewed seizure, sometimes being regained at intervals. It was not until two months had elapsed from the shock that he could talk fairly, and during all this time he had been laid by in consequence of loss of power in the right leg.

During the next year, 1894, the patient's health certainly improved. The fits were few and far between, not so severe, and their sequelæ slighter and more transient. As a rule he could walk about pretty briskly and talk easily. But no week passed without the occurrence of some difficulty of speech, sometimes induced by a little overexertion of body or mind, or excitement, or sometimes as far as could be discovered occurring causelessly. The difficulty in speech was aphonia pure and simple. In November he had an interesting seizure after an evening party. It began with some loss of power in his legs: he walked in a queer, jerky way, with them crossed, and staggered greatly; his pupils were widely dilated, and he was quite conscious for a time and fought against the attack. Then unconsciousness came on, with a cry very like the epileptic cry, and he had to be carried to bed. About this time his discs were examined by Mr. Cross, and no trustworthy indications of

past or present organic mischief were found. The patellar tendon reflex was now generally normal on both sides, and the action of heart and lungs was quiet and steady.

Throughout 1895 he was on the whole much better. The least excitement or over-exertion would induce an attack of hysterical laughter, followed by paresis and aphonia; but the attacks certainly became slighter and more transitory, and clonic convulsion or jactitation, the epileptic element, was absent. In fact, the course of his symptoms during the last two or three years has followed the course epitomised by a typical fit of hystero-epilepsy; viz., the predominance at first of symptoms mainly epileptic, or at all events of epilepsy associated with hysteria, but giving place at the close to symptoms ascribable to hysteria pure and simple, a sequence of events that supports the view that hystero-epilepsy is not a distinct pathological entity.

At the present time he is pretty comfortable, though often suffering from pain somewhere about the head and at the umbilicus, which latter may be quite independent of constipation. Hysterical seizures, followed by more or less paralysis in legs and larynx, are still readily induced, though more transient. He frequently suffers from umbilical pain and headache, whilst his bowels are sluggish and irregular, and he cannot sleep without a hypnotic. His pupils are sometimes unequal.

Before giving my opinion of the case, it may be convenient to briefly summarise the foregoing account of the symptoms.

The patient, a young man about 30, the son of a father almost certainly epileptic. Previous history good, save a vague story of some kind of fit when he was a lad.

Prominent symptoms: Tremors and convulsions, followed by defect of speech and some paresis. The tremors, &c., were of three kinds, viz.:

1. A tremor, to some degree rhythmical, affecting the muscular system generally and the eyeballs, though not involving the muscles of the head. This was increased by exertion and on observation, but shortly disappeared and did not reappear.

2. Violent jactitations, nearly always following headache, associated with loud laughter and other hysterical symptoms.

3. Tonic and clonic convulsions, producing a seizure indistinguishable from that of epilepsy (unless reliance is placed upon the fact that there was as a rule no cry, that the tongue was not bitten, or evacuations passed). Unconsciousness was complete, and much sleepiness or stupor succeeded.

Both 2 and 3 were followed by much exhaustion, and by loss of speech and of power of locomotion, lasting from a few hours to some months.

Other symptoms not to be lost sight of were: (1) increased patellar tendon reflex, on both sides at first; (2) dyspnœa and cardiac disturbance; (2) anomalous sensations at the base of the tongue; (4) shooting pains in the right eye; (5) cutting and shooting pains in the right thigh and leg; (6) a sense of constriction round the waist, and frequent umbilical pain generally concurring with pain at the vertex.

The important question to decide was, whether the patient was suffering from some organic disease of the cerebro-spinal system or not. He had certainly been condemned to death by many doctors prior to admission, and the early symptoms shortly after supported their view. The tremors and nystagmus and well-marked paresis strongly suggested disseminated sclerosis, while the jerkings of the limbs might have been referable to congestion or inflammation of the membranes of the cord. We find, too, in this disorder the increased tendency to laugh and cry causelessly that was conspicuous in our patient, while the convulsions, often unilateral and accompanied by hemiplegia, closely simulated the epileptiform attacks seen in disseminated sclerosis. For some time, I confess, I so regarded the case. But as time went on, and as many of these symptoms grew small by degrees and beautifully less until their urgency disappeared, another aspect of the case forced itself upon me. The hysterical element had of course always been noticeable; and noticeable, too, was the fact that the fits, whether of laughter with jactitations, or of epileptic convulsions, were certainly often caused by a mental or emotional disturbance or agitation, following, as they did, perhaps an unfeeling remark, perhaps a religious service, perhaps the visit of relatives: the *exciting cause was more often psychical than not.* At the present time

the patient is free from every symptom of organic cerebro-spinal disease, unless significance is placed upon the slight inequality of pupils. And after having had the opportunity of watching the course of the disease for nearly three and a-half years, and of marking the disappearance of most of the symptoms, the retention of nutrition and of muscular tone in limbs apparently long paralysed, and the improvement in general health and condition, I have no doubt I was mistaken. I believe the case to be an example of that combination of hysteria with epilepsy to which the convenient name of hystero-epilepsy has been given. As Bristowe says, the two affections, hysteria and epilepsy, appear to run into one another, and hystero-epilepsy forms the link between them. This explanation, it seems to me, most satisfactorily accounts for the phenomena I have described, as well as for the course of the disease. Although the jactitations may not have been of the amplitude so graphically delineated and illustrated in some text-books on nervous disorders, they were sufficiently striking and characteristic. The convulsions, as I have said, were indistinguishable from those of epilepsy, though, as is generally the case in hystero-epilepsy, the tongue was not bitten or evacuations passed. In this patient jactitations did not, as is usual, follow after clonic convulsions, but they replaced one another. On this hypothesis the paresis and aphonia must be regarded as hysterical, and their character was quite consistent with that view, while the vomiting, occasional passage of large quantities of urine, headache, and anomalous sensations and actual pains in throat, abdomen, and limbs, can fairly be referred to the same cause.

ON THE USE OF OXYGEN IN THE TREATMENT OF ANÆMIA, WITH A CASE TREATED BY TRANSFUSION OF BLOOD.

BY

J. MICHELL CLARKE, M.A., M.D. Cantab, F.R.C.P. Lond.,

Physician to the Bristol General Hospital, and Professor of Pathology and Morbid Anatomy, University College, Bristol.

MY attention was first drawn to the treatment of anæmia by oxygen by Dr. Frederick Taylor's paper[1] on the subject. In the following observations the determinations of the corpuscles and hæmoglobin were made by Dr. Gowers's hæmocytometer and hæmoglobinometer. When there was any doubt as to their correctness they were made by two observers. In most of the cases blood films stained with eosin and methyl blue, and eosin and logwood, were examined for the condition of white corpuscles. The oxygen was administered by inhalation from an indiarubber bag, which was filled from a Brin's cylinder.

CASE 1.—Pernicious anæmia (advanced stage) treated by oxygen, arsenic, and transfusion of normal blood.

John B., labourer, aged 38, complained of extreme weakness and of pains in the back. The family history was good. The patient had suffered from dyspepsia, but had never had any bad illness.

The present illness began two years ago with a feeling of great weakness, followed shortly afterwards by a severe attack of diarrhœa, in which he rapidly lost flesh and strength, and was confined to bed for six weeks. The weakness has gradually increased, and he has latterly suffered from shortness of breath on the slightest exertion, and from swelling of the feet towards night. He has had great soreness of the mouth and tongue throughout the illness. He has had no cough. Once when suffering from piles he passed a small quantity of blood with the motions, but with that exception he has never had any hemorrhage from any source whatever. He has suffered from occasional attacks of diarrhœa for some years past.

On admission, May 9th, 1896, he was emaciated and extremely anæmic, the skin being of a pale primrose tint. He had diarrhœa, with the passage of pale, loose motions. Appetite bad. Temp. 98°. Tongue pale, with transverse lines. Pulse 96, regular, small, and compressible. Pupils large. Blood: flows with difficulty, of fairly good colour; hæmoglobin 31%; red corpuscles 810,000 per cubic millimetre; red corpuscles

[1] *Tr. Clin. Soc. Lond.*, 1895, xxviii. 47.

irregular in size and shape, many nucleated, they do not form *rouleaux;* white corpuscles not in excess, and normal in appearance (in stained specimens). The heart was not enlarged. A systolic soft (hæmic) murmur was heard all over the præcordial area—loudest over the pulmonary artery. Abdomen: there was a small quantity of ascitic fluid; neither liver nor spleen showed any enlargement; the skin of the abdomen was somewhat dark in tint (pigmented), and there were some rounded pigment spots over the back. Eyes: optic discs very pale, veins full; a small hemorrhage was seen to the inner side of the left disc, and there was also a retinal hemorrhage in the right eye. Urine: pale; contained no albumen or sugar; with the spectroscope it gave a distinct urobilin band; sp. gr. 1010. He was given hydronaphthol gr. v. every four hours, and ordered inhalations of oxygen.

May 12th.—A mixture containing subnitrate of bismuth and liq. opii sedativ. was substituted for the hydronaphthol.

May 28th.—The diarrhœa continued for a week and then ceased. He had inhaled 180 cubic feet of oxygen, and expressed himself as feeling rather better, but had to leave it off on several occasions on account of its increasing the soreness of his mouth. Blood: hæmoglobin 35%, red corpuscles 1,000,000 to c.m. Their appearance was as described above.

June 6th.—His tongue was covered with small blisters, and he complained much of soreness of the mouth, pharynx, and windpipe, increased by inhalation of oxygen, and on this account the inhalation of the gas was suspended.

June 9th.—During this week the temperature rose to 100°. The urine still showed a well-marked urobilin band. The administration of arsenic with strychnine was now begun. The diarrhœa returned and was troublesome for a week. Blood: red corpuscles 980,000 to c.m., hæmoglobin 30%.

June 25th.—He had been taking liq. arsenicalis steadily, until a dose of ♏ ix. three times a day had been reached. Latterly it had been given with liq. morphinæ, as it caused some irritation of the stomach. As the general condition remained about the same, and the man was very bad, it was thought advisable to try the injection of normal blood, as recommended by Dr. Brakenridge[1]. The operation of transfusion by the indirect method was carefully performed on June 26th, and 3 oz. of venous blood of normal composition as regards red corpuscles and hæmoglobin, together with 1½ oz. of sod. phosphate solution of sp. gr. 1031, were transfused. His blood was examined five hours after transfusion. The red corpuscles were 2,580,000 to c.m.; hæmoglobin 40%. No excess of white cells. The pulse was fuller and stronger.

June 27th.—Blood: red corpuscles 1,404,750; hæmoglobin 40%. Patient felt much better, and the pulse was better and stronger.

July 3rd.—Patient looked and felt better, but the feet and legs were more swollen, and the soreness of the mouth continued. Blood: red cells 1,440,000; hæmoglobin 40%. Microcytes and poikilocytes abundant. Also many large red corpuscles.

July 4th.—6 oz. of normal venous blood with 2 oz. of sod. phosphate solution were transfused at 1.30 p.m. Though the operation was done slowly with every precaution and, so far as could be seen, was correctly performed, the patient was very faint and bad for about an hour after it, the face being dusky and the forehead covered with cold perspiration. On examining the blood at 7.30 p.m., red corpuscles were 3,700,000. to c.m. At 9.30 p.m. he passed urine deep red in colour, containing a

[1] *Edinb. M. J.*, 1892–93, xxxviii. 409.

considerable quantity of albumen. It gave the spectroscopic bands of oxy-hæmoglobin. No corpuscles were seen under the microscope, but there was a deposit consisting of a quantity of small round bright yellow granules.

July 5th.—Urine, dark in colour, gave hæmoglobin bands, and contained a trace of albumen. Blood: red cells 2,120,000.

July 6th.—Urine contained no hæmoglobin. Blood: red corpuscles 1,540,000, hæmoglobin 40 %. The patient felt better for some days after the operation, with a stronger pulse. Temperature varied from normal to 100°.

July 15th.—As the patient was not so well, transfusion was again performed as on July 4th, the same amount of normal blood being injected into median basilic vein. As it was thought that the faintness on the former occasion might have been due to the injection of cocaine gr. ½ into the arm to produce local anæsthesia, this was omitted, and the operation performed very slowly and with great care. During the rest of the day the patient was in a very weak, almost collapsed, state, and passed three loose, very offensive motions, which however contained no blood. The urine remained clear on that day; but that passed next morning was dark brown in colour, contained albumen, a few hyaline casts, and a deposit of the same bright yellow granules as before. With the spectroscope the bands of oxy-hæmoglobin were visible. The urine became clear during the day, and next day contained no hæmoglobin. The temperature rose at 6 p.m. to 101·6°. Blood, examined ten hours after the operation, contained red corpuscles 1,650,000, hæmoglobin 40%.

One week later the patient became much worse, and died on July 26th. It may be said briefly that the *post-mortem* appearances were those associated with pernicious anæmia. There was a moderate degree of fatty degeneration of the heart muscle; the liver and kidney gave reactions for iron; and the marrow in the tibia and sternum was red and semi-fluid. The spleen was not enlarged. There was a small quantity of fluid in the pleural and abdominal cavities, which was of a bright yellow colour.

With regard to treatment the oxygen inhalations, though carried out regularly at first, seemed to give little benefit, and they had to be discontinued on account of the soreness of the mouth and trachea, and of the feeling of extreme distension they produced. The administration of arsenic was attended with no benefit. On each occasion after transfusion of blood the condition of the patient's blood, as regards number of red cells and percentage of hæmoglobin, was temporarily improved, and this was most marked on the second occasion. It was noticeable that the percentage of hæmoglobin was raised after the first transfusion, and remained about the same level afterwards. The patient also felt better after them. The improvement was however merely temporary, the condition of the blood steadily reverting to its former state, and in spite of due care in the operation the last two transfusions were attended with the serious

symptoms above given. The disease was however far advanced on admission, and possibly treatment was undertaken too late.

CASE 2.—Case of profound anæmia in which recovery occurred under the use of oxygen. Clinically this case appeared to be one of pernicious anæmia, but there was also present a slight enlargement of the spleen.

Emily T., aged 54. Family history good. The patient had always been delicate in health, and suffered from frequent attacks of sick-headache, but was active and energetic, and had never had any bad illness. She complained of weakness, palpitation, of attacks of sickness, and of constant headache. Eighteen months ago she had an attack of jaundice, and the whole illness had lasted about two years, being attributed by her to grief and anxiety. During the previous winter she was laid up in bed for three or four months with a bad cold and weakness. Since that time she had suffered from coldness and numbness of the extremities. During the six weeks previous to admission into the Bristol General Hospital, on Sept. 17, 1895, she had become so weak that she could only walk with the greatest difficulty. Her breath was very short, and there was some œdema of the feet at night. She had never suffered from hemorrhages of any kind.

On admission the patient was well nourished, but very anæmic, the skin having a lemon-coloured tinge. The pulse was 84, soft and compressible; respirations 22; temperature 99°. The lungs were healthy. The heart was slightly enlarged; a soft systolic murmur was audible all over the præcordial region, and hæmic murmurs were heard at the root of the neck. The liver was not enlarged. The spleen was slightly enlarged, its tip being plainly felt below the ribs. The skin of the abdomen was slightly pigmented and dark in colour. Urine: clear, contained no albumen or sugar, gave a well-marked indigo reaction, sp. gr. 1010; average daily amount, 45 oz.; no urobilin band was seen with the spectroscope; urea 1.5%. Optic discs and retinæ were pale, but no hemorrhages were seen. Blood: red cells 2,202,000 to c.m.; many poikilocytes, macrocytes, and microcytes, and a few nucleated corpuscles; no excess of white corpuscles; hæmoglobin 55%.

For the first month she was treated with increasing doses of arsenic. She suffered at times from troublesome attacks of diarrhœa, with the passage of loose and offensive motions, for which she took a mixture containing bismuth subnitrate and salol. Towards the end of this time she also took a preparation of marrow. Her temperature remained about normal, except on two days when it rose to 100°. At the end of the month she showed no improvement, excepting a slight increase of appetite. Examination of the blood now showed: red corpuscles 2,090,000 to c.m., hæmoglobin 52%.

Oct. 17.—Inhalations of oxygen begun. After a week's administration of oxygen she felt decidedly better and stronger; she felt brighter immediately after the inhalation, often falling into a sleep and awaking refreshed.

Nov. 4th.—She had inhaled 40 c. ft. of oxygen. Blood: red corpuscles 2,390,000, hæmoglobin 55%; characters of corpuscles the same as on admission. Arsenic was now discontinued on account of sickness.

Nov. 30th.—Up to this date she had inhaled five cylinders of oxygen, each containing 40 c. ft., using them at the rate of one cylinder in five days. Blood: red corpuscles 2,940,000 to c.m., hæmoglobin 68%. It was noticeable that the number of corpuscles began to increase before

the percentage of hæmoglobin was raised. She complained of a little soreness of the mouth after inhaling oxygen.

Dec. 18th.—The administration of oxygen was continued in the same quantity. Blood: hæmoglobin 78%, red corpuscles 3,960,000; corpuscles mostly normal in size and shape, but a few poikilocytes present in each field; the blood flowed more readily from the finger.

Jan. 4th.—She had greatly improved in strength, the attacks of headache and sickness had ceased, and she suffered only very slightly from flatulence. It was doubtful whether the tip of the spleen could be felt or not. She left the hospital and attended as an out-patient, again taking small doses of arsenic.

She continued to attend as an out-patient, taking arsenic regularly.

July 23rd.—She looked well, was able to get about and do her housework, and had gained flesh. Skin of abdomen was now deeply pigmented, especially on left side. No enlargement of the spleen could now be detected. Heart: no murmur at apex; ? faint systolic over pulmonary area. Blood: hæmoglobin 70%; red corpuscles form *rouleaux* and are of normal appearance, 4,000,000 to c.m.; no excess of white cells.

CASE 3.—Profound anæmia, probably due to repeated small attacks of epistaxis, relieved by oxygen inhalations.

Geo. W., aged 43, an agricultural labourer, his work entailing a good deal of exposure to cold and wet. Nothing of importance in family history. He had always enjoyed good health except for an attack of small-pox three years ago, and of influenza four years ago. Ever since a child he has been subject to occasional attacks of epistaxis, sometimes with the loss of a considerable amount of blood; he has not especially suffered in this way lately. He often suffers from heavy colds, which settle on his chest, and the epistaxis is then worse. No bleeding from any other source. He had never suffered from piles, or had any venereal disease.

For the last two or three months the patient has suffered from pain and sensation of weight in his stomach immediately after taking food; also from shortness of breath, and latterly from palpitation of the heart after exertion. His feet swell towards night.

Dec. 14th, 1895.—On admission he looked profoundly anæmic; there were some stigmata and bright red rounded papules on cheeks. Pulse 70, sudden, short wave, not easily compressible. Temperature 98°. Appetite good. Bowels regular. Tongue: small, pale, moist. He was well-nourished, and the skin of a faint lemon tint. Chest normal, except that there is a little deficient resonance and weakness of breath-sounds over left side. Heart: apex-beat 5th space 1 in. outside nipple. There was a little deficient resonance over the 1st piece of the sternum. A systolic murmur was audible over the whole præcordial area—loudest in the 2nd left intercostal space, and at the apex. The aortic 2nd sound was accentuated. Liver and spleen of normal size to percussion, latter not felt. Urine: clear, acid, no deposit; sp. gr. 1010; no albumen or sugar. Nails indented, transversely furrowed and cracked. Blood: corpuscles 3,100,000 to c.m., hæmoglobin 31%; red corpuscles irregular in size and shape, and there were a few large and very many small corpuscles. The number of leucocytes was slightly increased. The blood was rather watery and flowed with difficulty. Optic discs pale. No retinal hemorrhages.

Treatment until January 1st was by arsenic in gradually increasing doses, with ferri et ammon. cit. gr. x. three times a day. Little or no improvement resulted, the condition of the blood and the general symptoms remaining the same. The temperature was not above

normal, with a tendency to fall to 98°. The faint icteric tinge of the skin remained present.

Jan. 1st.—The administration of oxygen was begun, and by the 14th he had inhaled 120 cubic feet of the gas. During this fortnight he had a mild attack of bronchitis and two attacks of epistaxis. Examination of the blood on Jan. 14th gave hæmoglobin 34%; red corpuscles 3,800,000 to c.m. They formed *rouleaux* and poikilocytes were fewer in number.

During the following three weeks he inhaled 270 cubic feet of oxygen. His condition steadily improved, although he had several attacks of epistaxis. The loss of blood in each attack was, however, never considerable, and was controlled by the use of a tannic acid snuff.

Feb. 4th.—The red corpuscles were 4,200,000 to c.m., and the hæmoglobin 45%. There were still present small and irregularly shaped corpuscles, but taken as a whole the corpuscles were much more regular in size and shape than on admission.

Feb. 14th.—As the rise in the percentage of hæmoglobin had not kept pace with that in the number of the red corpuscles, the patient was given three grains of the exsiccated sulphate of iron three times a day. The oxygen inhalations were continued.

The subsequent course of the case was one of steady improvement; the epistaxis ceased, and on March 7th the hæmoglobin had risen to 65% and the red corpuscles to 4,300,000 to c.m.; the latter were of good shape and formed *rouleaux*.

He left the hospital on March 9th, feeling and looking well, and came up as an out-patient on April 20th, reporting himself as well and able to do his work. On examination of the blood the red corpuscles were 4,300,000 to c.m. and hæmoglobin 70%.

Here the patient's aspect and the microscopic appearances of the red corpuscles were indistinguishable from those of pernicious anæmia; but on the other hand the reduction in the percentage of hæmoglobin was not proportional to the destruction of red corpuscles, the blood decimal on admission being 0.5; in this respect, therefore, the condition of the blood corresponded to that found in chlorosis. Moreover, there were no retinal hemorrhages, nor was there a urobilin band in the urine. The source of the anæmia appeared to be the repeated small losses of blood from epistaxis, for which no local cause could be found in the nose. The beneficial effect of oxygen was marked in this case, and, as in the second one, it was noted that a rise in the percentage of red corpuscles occurred without a proportionate increase in hæmoglobin, whilst a more rapid improvement in the latter respect took place on giving iron in addition to oxygen.

Case 4.—Case of anæmia following *post-partum* hemorrhage.

The patient, aged 33, had enjoyed good health until her confinement six weeks previously, which was followed by excessive hemorrhage. On admission she was extremely weak, and presented the appearance of profound anæmia. She answered questions very slowly, and had become deaf during the present illness. A systolic

murmur was heard over the area of the pulmonary artery, otherwise the thoracic and abdominal organs were normal on examination. The temperature was normal. Blood: hæmoglobin 15%; red corpuscles 780,000 to c.m., they formed *rouleaux* imperfectly, looked pale, and there were numerous microcytes and poikilocytes. Blood decimal 0.9.

She was given a ferruginous mixture, and in addition inhaled about 34 gallons of oxygen daily. She experienced great relief to her symptoms from the inhalations of oxygen, and made a rapid recovery, being fit to leave the hospital just under six weeks from admission, examination of the blood then showing red corpuscles 4,110,000 to c.m., and normal in size and shape; hæmoglobin 79%.

Judging from the severe degree of anæmia present on admission, recovery appeared to take place more rapidly than it would have done under treatment with iron and rest only.

These cases seem to show that considerable benefit may be derived from the use of oxygen in the treatment of cases of profound anæmia, and that under its employment recovery may be more speedy and complete. In the milder forms of anæmia and chlorosis it will hardly be necessary, and in the severe cases, as well as in pernicious anæmia, I think that its use will be rather as an adjuvant to the established remedies, iron and arsenic, than as a substitute for them. In the 2nd and 3rd cases described above, improvement took place under oxygen, when arsenic in the former, and arsenic and iron in the latter, had failed at first to do good. The only drawback noticed in its administration was that it caused in two of the patients a painful soreness of the mouth and throat and a feeling of distension.

A CASE OF NEEDLE IN FOOT REVEALED BY THE X RAYS.

BY

W. E. POUNTNEY, M.D.

I report the following case only to show one more instance of the great value and utility of the new photography in aid of diagnosis and treatment in practical surgery.

Mrs. B. consulted me on June 22nd with the following history. When retiring to bed on June 7th she felt a sharp pain in her foot, but did not know the cause until, after search,

she found the half of a needle in her stocking. She did not know whether the other portion was in her foot or not. On manipulation I could feel no trace of any foreign body, but on deep pressure in the centre of the plantar surface much pain was produced.

I recommended her to have her foot photographed to establish a diagnosis and to find out if there was any foreign body, and, if so, its immediate locality. She went to University College, Bristol, and there had two skiagrams taken, one from the plantar surface of the foot and one from the side. These showed very plainly the position of the piece of needle. The second of them is here reproduced.

As Mrs. B. did not feel very much inconvenience, she made up her mind to wait a little time before submitting to operation. But she suffered so much pain on June 28th, after a great deal of standing and walking on the previous day, that she decided to have the needle removed. Before operating, I recommended that another skiagram should be taken, to see if the position of the needle had altered. As the new negative showed that it had not moved in the least, ether was administered on July 1st and an incision made along the plantar surface of the foot over the supposed spot where the needle lay, and after some little difficulty and search it was discovered and extracted. The piece measured 9-16ths of an inch in length. The patient made an uninterrupted recovery.

Progress of the Medical Sciences.

MEDICINE.

The mechanico-physiological method of treatment of circulatory derangements instituted by Professor M. J. Oertel, of Munich, described fully in Von Ziemssen's *Handbook of General Therapeutics* (vol. vii.), has long been known, and the results are well summarised in an elaborate table (page 257). By these methods it has been attempted for the first time by one of the most arduous kinds of exercises—viz., mountain climbing—to act immediately upon the heart-muscle, and thus to cause powerful contractions. These exercises have been found to accomplish everything expected from them, and have influenced not only the heart itself, but also the other parts and functions of the body which influence the circulation—to wit, the expansion of the thorax, the enlargement of the respiratory surface by the forced inspiration, the greater fulness of the arterial system, the greater supply of oxygen, and the increased oxidation.

"The influence of mountain ascents of one thousand metres or more above the valley level upon the heart and lungs is a more powerful one than we can obtain by any other means. Such a perfect readjustment of circulatory derangement of so high a grade as described in the above cases has never hitherto been effected, and it well shows what great modifications of the organism and what radical reconstructions are possible by physiological means. Dehydration and mountain climbing must henceforward be regarded as one chief aid in circulatory disease, venous stasis, cardiac debility (in tuberculosis), compression of the pulmonary circulation, diminished oxidation of the tissues, and fatty heart."

The principle embodied in the above quotation is at the foundation of the more modern system associated with the names of Nauheim and the brothers Schott, whose methods have of late attracted much attention. The success obtained by the Zander movement cure induced Dr. August Schott to devise a system of mild gymnastics or drill for the treatment of neurasthenic and hysterical patients, when it was found that the method originally devised for steadying and strengthening the nervous system proved to be a valuable adjunct to the bath treatment of cardiac disease. The employment of **regulated muscular exercises in the treatment of heart-disease** has now become an established method, and has received the enthusiastic support of the many physicians who have visited Nauheim to learn it. There appears to be no limit to the possibilities of improvement

in cases of failing heart. Oertel's method was applicable only in those cases which were capable of more or less walking or climbing; but the Schotts' method has extended the range of treatment by exercises and baths to those patients who are too ill to take other kinds of exercise, and in whom failure of compensation has led to stagnation in various organs giving the usual phenomena present in advanced cases of heart-disease with failure of heart-power and its results.

The most recent evidence on this subject is that given in the discussion on the **diagnosis and treatment of heart failure**, which was opened by Professor Sir Thomas Grainger Stewart at the meeting of the British Medical Association in Carlisle. After an interesting, clear, and concise summary of the whole subject in which he emphasised the value of rest, more especially suitable to our hospital cases accustomed to hard laborious work, he proceeded to summarise the present views on exercises of all kinds, including—

1. Passive exercises and massage.
2. Movements with regulated resistance (Schott).
3. More active movements, as in hill climbing (Oertel).

The methods by which the effects of treatment were to be gauged were analysed, and it was Sir Grainger Stewart's belief that the alterations which the area of dulness showed under treatment were often quite unmistakable, and could not be explained in any other way except by changes in the heart itself. He had fully satisfied himself by observation on the dead body that he could rely upon percussion for determining the size and outline of the heart; but he also pointed out that Dr. Macintyre, of Glasgow, had been so successful in obtaining outlines of the viscera by Röntgen's rays, that we well might look to this method for ocular demonstration of variations in the heart's area. His experience of **the Schott method** had satisfied him (1) that in a large proportion of cases it effects immediate improvement of the heart, as shown by auscultation and percussion; (2) that in many cases the rhythm of the pulse improves and the heart becomes more vigorous; (3) that while the immediate effect is in a sense temporary, the heart rarely goes back to its previous condition of dilatation, but remains somewhat smaller than it had been before the exercises; and (4) that gradually improvement of a lasting kind sets in, so that the heart recovers its tone and the area of dulness diminishes. He concluded that the system of resisted movements appeared to be best suited to cases in which a certain power of heart exists, whilst the more passive exercises of massage would be applicable to weaker conditions of the organ.

A very important part of the treatment at **Nauheim** consists of **baths**, and the speaker was able to say that this method produced changes as definite in the area of cardiac dulness as those resulting from exercises. Artificial baths, salines with free carbonic acid, gave results in Edinburgh as successful as at

Nauheim, and these results, both from exercises and baths, either alone or in combination, might be looked for with absolute certainty.

Dr. Herringham [1] gave an interesting comparison between the ordinary percussion, which he found to be extraordinarily accurate, and that of auscultatory percussion, which was found to have many difficulties and drawbacks. On this question there is much diversity of opinion and practice, and Dr. Bezly Thorne's [2] views thereon are now well known. The demonstration given by Dr. Thorne [3] at the Cumberland Infirmary must have convinced the incredulous that both baths and exercises are potent instruments in producing a profound modification in the circulation as shown both by pulse tracings and by Dr. Thorne's method of mapping out the heart by means of auscultatory percussion. It is an astonishing fact that a few simple exercises (seven of which were performed in the case demonstrated) should produce so much result. Recently Dr. George Herschell [4] has advised the use of a rubber cord for the production of the resistance: he assumes that the evidence in favour of the practical utility of the resisted movements is overwhelming, and he points out the advantages which may be secured by the use of a mechanical apparatus. The exercising machine which he uses is called "The Whiteley Exerciser" (10 Ironmonger Lane, London, E.C.) By it we substitute for the fallible muscles of a nurse the unvarying tension of a rubber cord. It is equally astonishing that a saline bath at 94° for four minutes should in another case produce as striking a result; but either we must accept the results as facts, or else assume that numerous and accurate observers are capable of deceiving themselves and others by acts of jugglery with the sphygmograph and stethoscope.

On the **physiology of Nauheim treatment** many opinions were expressed. Dr. Harry Campbell's views are as follows:—The beneficial effect of cold baths and resisted movements is chiefly referable to two factors: a widespread tonic contraction of the muscles, and an increase in thoracic capacity. These two factors operate in both methods of treatment. Thus during the performance of a resisted movement in the upright position, almost the entire muscle-system is tonically contracted, in order to produce the necessary rigidity of the skeleton, and to preserve equilibrium; similarly, when the patient is put into a cold bath, an involuntary tonic contraction of the muscles occurs. That the mean respiratory capacity is increased during the performance of resisted movements is acknowledged by most authorities, and there can be no doubt that it is also increased by immersion in cold water. The advantage of this thoracic expansion is obvious, facilitating, as it does, the flow of blood through the lungs. The widespread tonic contraction has a threefold good effect: *a*, the

[1] *Lancet*, 1896, ii. 421. [2] *Brit. M. J.*, 1896, i. 1140. [3] *Lancet*, 1896, ii. 423.
[4] *Ibid.*, 460.

heart is stimulated to more powerful contraction; *b*, blood is attracted into the muscles away from other areas; and *c*, the flow of blood into the right heart is retarded, the muscle and splanchnic veins being compressed by the contracted muscles. Dr. Watson Williams believes that the baths and exercises, carefully regulated, and with special directions as regards respiration, cause transudation from the capillaries into the lymphatics, relieve hydræmic plethora from which most of the cases are suffering, and by removing to a considerable extent the *vis a fronte* with which the heart has been unable to cope, thus placing it under favourable conditions for contracting with greater vigour and bringing the cardio-vascular system within the physiological range of Marey's law. Dr. Theodore Fisher commented on the kind of cases which derived most benefit from this kind of treatment, and he believed that it was in cases of hypertrophy without other organic defect in which he had seen best results. Probably it is not commonly successful in cases of valvular disease, but especially in the cases of alcoholic hypertrophy he had seen great improvement. In Sir T. Grainger Stewart's reply the further fact was elicited that as a result of his experiments he had come to the conclusion that it was the carbon dioxide in the water which was mainly instrumental in producing the marvellous results which had been seen.

Some other observers have suggested that the kind of massage due to the percussion on the body of innumerable bubbles of the carbonic acid gas is an important factor in the Nauheim treatment.

The method of **combined auscultation and percussion** is very closely associated with the Nauheim treatment, inasmuch as almost all the writers on the subject use the combined method for mapping out the heart-area as being more accurate and trustworthy than simple percussion. Those who have become accustomed to this combined method cannot fail to appreciate its advantages, not only as being useful in mapping out accurately the outlines of solid organs, but also for ascertaining the size and outlines of the hollow viscera. Within the last few years many communications have directed attention to the method. The most noteworthy are included in the list below.[1] There are many variations in the details adopted; the tuning-fork does not stand the test of experience; if worked by an electromagnet as suggested by Dr. A. L. Benedict, of Buffalo, it might be trustworthy, but who will care to carry about the needful apparatus for use at the bedside? But there is no need for any other apparatus than the ordinary binaural stethoscope held by

[1] F. W. Jackson, *N. York M. J.*, 1891, liii. 709; L. L. Seaman, *Tr. N. York Acad. M.*, 1891, 2nd s., vii. 279; Sir B. W. Richardson, *Lancet*, 1892, ii. 1037; C. E. Quimby, *Med. Rec.*, 1893, xliii. 353; W. Ewart, *Lancet*, 1893, i. 1241; A. H. Smith, *Med. Rec.*, 1893, xliii. 777; H. Sewall, *Med. News*, 1893, lxiii. 483; A. L. Benedict, *Tr. M. Soc. N. Y.*, 1895, 351; H. Royet, *Gaz. d. Hôp. de Toulouse*, 1896, x. 50; W. B. Thorne, *Brit. M. J.*, 1896, i. 653, 1140; Sir W. H. Broadbent, *Ibid.*, 769; G. Herschell, *Ibid.*, 943.

the one hand and the fingers of the other hand to be used as a direct percussor. The pencil is used by Dr. Bezly Thorne, but any kind of hammer will serve well for the purpose; that suggested by Dr. Kingscote, of Salisbury, and shown at the Carlisle meeting, should be efficient. This hammer is intended to be used with a boxwood cone, with a rubber ring surrounding the apex of the cone, and so limiting the extent of vibration through the surface-tissues. My usual habit has been to use the middle finger of the right hand flipped from the end of the thumb; but I take it that the method which is most familiar to the individual observer will be likely to give the best results. As regards the theory of the method, Dr. P. Watson Williams[1] says auscultatory percussion of the heart, which he has practised on the cadaver and verified the results by subsequent examination, while not an absolutely accurate method of determining the cardiac area in relation to the chest-wall, is nevertheless more accurate than any other method, and of sufficient accuracy for determining the cardiac area. But inasmuch as the curved surface of the heart is lying behind the curved surface of a thick chest-wall, the area of the chest's surface thus delineated and the actual area of the heart are in some measure comparable to the segments of a large and small circle having the same centre. Thus the cardiac area as mapped out on the surface of the chest must be larger than the actual cardiac area, and therefore any alteration in the cardiac area, however accurately determined, appears greater than actually occurs.

Intimately related to the Schotts' method comes the subject of **respiratory exercises in the treatment of disease**, on which a paper was read at Carlisle by Dr. Harry Campbell,[2] who stated that such exercises benefit not only by developing the lungs, and thus diminishing their liability to disease, but by facilitating the flow of blood and lymph. Dr. Campbell emphasised the importance of developing the lungs to the utmost in cases of heart-disease, for the better developed these organs the less is the work put upon the right heart; and since the limit of life in heart-disease is to a large extent determined by the length of time which the right heart can hold out, it is important to facilitate its work as far as possible. Special reference was made to the influence of diaphragmatic breathing. The movements of the diaphragm not only pump lymph from the peritoneum into the pleuræ, they also influence the functions of the abdominal and pelvic viscera by rhythmically compressing and (in many instances) dislocating these latter; hence diaphragmatic exercises are often useful in functional disturbances of these organs. Among the many diseases in which respiratory exercises are useful, emphysema was mentioned. It was pointed out that the chief trouble of the emphysematous patient is his inability to adequately expire, and that this is due to the fixation of the chest in a position of extreme inspiration. It was contended

[1] *Brit. M. J.*, 1896, ii. 714. [2] *Ibid.*, 716.

that this is due to the protracted over-action of the inspiratory muscles, no longer counteracted by normal pulmonary elasticity, and might be largely prevented by systematic, long-continued *ex*piratory exercises.

R. SHINGLETON SMITH.

SURGERY.

It is only within the last few years that surgical relief has been thought of as applicable to **perforating ulcer of the stomach.** In 1883 Mr. Nelson C. Dobson lost a patient from gastric perforation. At the necropsy the opening was found to be in the anterior wall, and so accessible that he reported the facts,[1] and advocated in a similar case operative interference along one of the following lines: (1) Simple abdominal section with cleansing of the peritoneum, leaving the ulcer to heal of itself under rest and rectal feeding. (2) The closure of the perforation by suture, either with or without paring its edges. (3) The suture of the stomach, at the point of perforation, to the abdominal wall in order to establish a gastric fistula.

Dr. R. F. Weir and Dr. E. M. Foote, of New York, give an able summary[2] of **recent advances** in this branch of surgery. The first successful case reported was by Kriege,[3] and since that time the surgical treatment of perforating gastric ulcer has widely spread, particularly in Great Britain, so that now the collection of such operations has attained a total of seventy-seven cases, obtained from American, English, German, and French periodicals. Five-sixths of the seventy-eight cases occurred in women, three-fourths of whom were not above twenty-five years of age. With regard to the site of the perforation, it occurred forty-three times in the anterior wall, eleven times in the posterior wall, and six times in the lesser curvature. In twenty-seven cases the perforation was said to be near the cardiac orifice, and only nine times near the pylorus. The most important point in this connection is the accessibility of the perforation, and when we look over the tables with that idea in mind we find that in the large majority of cases it could be reached and sutured. In only eight cases is it stated that a suture of the perforation was impossible, either from its location, or the condition of the stomach-wall or that of the patient. This is by no means a bad record; on the contrary, it is an encouraging one. In sixteen cases the perforation was not found. In two of these it was considered unwise to separate adhesions between stomach and liver to look for it—a fatal caution. In several other cases the real cause of the peritonitis was not suspected, and in nearly every case, as the necropsies showed, the lesion was readily accessible to discovery and suture had a reasonably diligent search been made. In justice

[1] *Bristol M.-Chir. J.*, 1883, i. 196. [2] *Med. News*, 1896, lxviii. 449.
[3] *Berl. klin. Wchnschr.*, 1892, xxix. 1280.

be it said, however, that many of these cases occurred in the earlier days of this still new operation, and the operators had not the experience of others as their guide; also that the serious condition of the patient often limited the duration of a proper exploration.

An interesting point in connection with the surgical treatment of a gastric ulcer is the **time** which elapsed **between** the **perforation and** the **operation** done for its relief. It seems an invariable rule that perforation is attended with an attack of sharp abdominal pain, so that the time of perforation can usually be determined. The average time which elapsed before operation was thirty-six hours; but the extremes being so far apart as two hours and three hundred and thirty-six hours, the average has little value. It is more instructive to notice that in twenty-one cases which recovered the elapsed time averaged nineteen hours, while in two-thirds of these cases it was less than twelve hours. In the fifty-five unsuccessful cases the elapsed time averaged forty-three hours, and over twenty-four hours in two-thirds of these cases. It requires, therefore, no discussion to prove how much better is the chance of recovery when a perforation has existed ten hours than when it has existed twenty hours or more; and when a more certain diagnosis brings the patient sooner to the operating table, the percentage of recovery, which in the cases recorded up to date is about twenty-nine per cent., will doubtless be improved.

The secret of success lies in **early diagnosis**. There is almost invariably a history of gastric trouble, though not necessarily a well-marked history of gastric ulcer. There is an attack of sharp pain referred usually to the epigastric or left hypochondriac region, followed sometimes by pain in the lower abdomen. The pain is at first intense, often producing collapse or unconsciousness; usually it quickly moderates. Vomiting may or may not be present. Vomiting of blood is very unusual. In one case hæmatemesis had been present for many days; but although the vomiting continued after the perforation, it was without blood. After some hours, the time varying according to the amount and character of the escaped gastric contents, the symptoms of peritonitis manifest themselves. The physical examination of the patient is of great importance. In the earliest stage of the trouble the pallor, the anxious countenance, the feeble pulse, the thoracic respiration and the rigid abdomen, all point to the injury to the peritoneum. If gas has escaped from the stomach, or has developed by fermentation of the escaped gastric contents, the hepatic and splenic dulness may be reduced in area, or wholly disappear. It is evident that this condition might also follow intestinal perforation. But when the abdomen is opened the distinction between the two is plain, for the gas from the stomach is without odour, or slightly sour, while that from the intestines has a fæcal odour. As regards the operation itself, a median incision is the best, and should be of ample

length, from three to five inches. The liver is to be lifted up by the hand of an assistant, and the stomach gently drawn downward and to one or the other side. Gentle squeezing of the organ will often expose the perforation by the escape of gas or fluid. If nothing is seen on the anterior surface, the lesser omentum is to be torn through at a thin place near the stomach, and the posterior wall explored as much as possible. With the aid of a sponge on a clamp through this same opening, the recesses of this cavity can be reached to search for extravasated fluid. If any recent adhesions exist about the perforation it is wiser to separate them, after protecting as far as possible the adjacent parts by gauze or sponges, and thus to find and to suture the gap, than to trust to the fibrinous closure. Excision of the ulcer has been advocated by some. On the other hand, it has been objected, with much reason, that this is unnecessary, that it takes valuable time, that it makes a larger and more difficult opening to close, and that hemorrhage follows, which is very detrimental to the patient and is often troublesome to check. In only three of the twenty-three successful cases was the ulcer excised. Of the remaining twenty, seventeen were sutured, Lembert style, while two of the others were tamponed, suture being impossible, and in the other case the fibrinous adhesions were not disturbed. In twelve of the successful cases irrigation of the peritoneal cavity was resorted to. In eight cases no irrigation was employed, but the peritoneum, when soiled, was cleansed with gauze. Five successful cases were drained; in ten no drainage was employed.

Dr. Alexis Thomson[1] records a **successful operation** for perforating ulcer of stomach some twenty-four hours after the first symptoms developed. The patient was a man aged 41, who had suffered from symptoms of gastric ulcer for five or six months. The perforation was attended with the usual attack of pain in the region of the umbilicus, vomiting and collapse. On opening the abdomen a circular hole was recognised on the anterior wall of the stomach, nearer the lesser than the greater curvature, and nearer the cardia than the pylorus. The hole was the size of a threepenny piece, and from it there escaped with each inspiration gushes of stomach fluid contents. While the fluid was soaked up with sponges a tube was passed down the œsophagus, and the remaining contents of the stomach were withdrawn. The walls of the stomach were then brought together with eight Lembert silk sutures. The peritoneal cavity was well washed out, and a drainage tube inserted, through which the fluid was sucked out every quarter of an hour for the first twenty-four hours. Four months after the operation the patient was strong and well. Dr. Alexis Thomson agrees with Mr. Pearce Gould that excision of the ulcer or paring of its edges is to be avoided. He recommends that a considerable area of stomach wall should be invaginated

[1] *Lancet*, 1896, ii. 11.

and that free washing out of the peritoneal cavity with hot saline solution or boiled water should be practised in all cases.

Dr. Charles T. Parker, of New York,[1] records a **successful case of this operation,** and points out that while medical treatment in these cases accomplishes practically nothing, laparotomy can alone assure one of the diagnosis and afford rational treatment. To be efficient it must be done early, and if the perforation is found and the peritoneum infected, one must make the necessary toilet of the peritoneum and suture directly, resect and suture, or perform a gastro-enterostomy. If the ulcer is difficult of access, and the above conditions cannot be carried out in their entirety, one is forced to suture and pack the cavity with gauze. The results of early laparotomy have been encouraging enough to force us to proceed in the attempt to make an early diagnosis, and to hope for even better results in the future than in the past. The results at the present day are certainly better than those of ten years ago. Pariser reports eleven recoveries in forty-three cases; Schuchardt reports two cases of recoveries; Heusner three cases which were fatal; Comte, who very lately collected the statistics upon this subject, has found nineteen recoveries in sixty-five cases. Dr. Parker's case was characterised by the symptoms of an antecedent gastritis, fixed pains in the epigastrium, and an observable induration in the epigastric region. The operation revealed an ulcer so near the point of perforation that the difference in tension within the abdomen brought about by the incision caused its rupture. The ulcer, which was on the anterior wall of the stomach, was so much indurated in its immediate surroundings, that it was thought better not to insert any sutures. The exposed area was accordingly washed out with a salt solution and packed with sterile gauze over which a sterile dressing was applied. The wound was dressed daily with the intention that as soon as the infection was over a suture of the stomach wall would be undertaken, if necessary. After the second day the discharge and odour from the cavity were diminished. This continued for one week, when the wound began to granulate. During the first five days following the operation the nourishment was entirely by the rectum. The temperature remained about 100.4°, and pulse 96. At the end of a week milk was given by the mouth. A fistula remained for some time, but healed in about three months, and complete recovery ensued.

Dr. R. A. Lundie, in January, 1895, showed a patient at the Edinburgh Medico-Chirurgical Society upon whom a **successful operation** had been performed for perforation of a gastric ulcer.[2] The patient was a dressmaker, aged 24, who had suffered from severe indigestion for about two years. The chief symptoms were pain, generally coming on an hour or less after taking food, and vomiting, which relieved the pain. No blood was

[1] *Ann. Surg.*, 1896, xxiii. 733. [2] *Edinb. Hosp. Rep.*, 1896, iv. 485.

ever vomited, so far as had been observed. For two months the symptoms had been severe and continuous. On October 17, 1894, while at work in the afternoon, she had a particularly sharp pain "at the bottom of the ribs" on the left side. It left her during the night, only to return the next day when she was on her way to work. In the afternoon and evening she remained at home and applied poultices, which she thought gave her some relief. On the 19th she went to sleep at night as usual, but was wakened about 1 a.m. by an agonising pain in the left side at the waist, which went across to the right side, and spread downwards all over the front of the abdomen. When seen at 9 a.m. she was lying on her back with knees drawn up, with a grey pinched face and an anxious expression, and complained of severe pain in the abdomen. Pulse 110, small and tense; temperature 99.6°. The abdominal walls were intensely hard and rigid all over, but especially in the upper part, yet there was less acute tenderness than might have been expected. Disappearance of liver dulness was not looked for. Operation was performed under chloroform at 11 a.m. the same day. A curved incision was made, with its extremities in the middle line, about 5½ in. apart, extending from a little below the xiphoid cartilage to a little below the umbilicus, with the convexity to the right, reaching at its centre to about 2½ in. from the middle line. The skin and subcutaneous tissues were thrown back, and the rest of the abdominal wall was divided in the middle line. As soon as the peritoneum was incised gas began to escape and yellow fluid to ooze out. The perforation was found to be a small circular opening, about ⅛ in. in diameter, on the anterior wall of the stomach. It must have been near the middle of the anterior surface, but the parts were not sufficiently exposed to allow this to be made out with precision. Though the coats around were indurated, there was no difficulty in doubling the peritoneal covering together. Fine silk was used; two stitches were passed through the perforation to prevent further leakage, and six Lembert sutures fixed the surrounding peritoneum. The stomach being quite flaccid, was not washed out. The abdomen was irrigated with a hot carbolic solution, about 1 to 120. The after progress of the patient was most satisfactory. She bore rectal feeding well, and had no nourishment by the mouth for more than a fortnight. When the wound was dressed for the first time, on October 29, it was found healed throughout by first intention, and all the stitches were removed.

W. H. HARSANT.

DERMATOLOGY.

Mr. Hutchinson[1] says that no forms of **eczematous inflammation** ever tend to spontaneous recovery, but unless treated become more extensive and more severe. The exceptions to

[1] *Clin. J.*, 1895, vi. 275.

this are when the patient changes place of residence or mode of life. He thinks proof is abundant and convincing that the tendency to eczema may be hereditary. Thus he says it may prevail in several persons in the same family, and may occur with greater severity in successive generations. The laws under which it is transmitted appear to him to be the same as those of other heritable diseases. They do not prove that the disease, as a totality, is inherited, but rather, perhaps, that a condition of skin especially liable to it is so transmitted. Mr. Hutchinson considers the eczema of infants has nothing whatever to do with the child's health. The infant is usually quite well up to the time of its commencement, and excepting in so far that the dermatitis may interfere with its comfort and rest it remains so throughout. The disease is somewhat difficult to cure until about the end of the lactation period. Even in the most troublesome cases medical treatment generally succeeds about the time that the child is being put upon a mixed diet, and is fed less exclusively on milk. Mr. Hutchinson infers that the dermatitis when at its height is due to the existence of some contagious material which has in some way been generated, and that it is only in a very feeble sense of the words a constitutional malady. It may be observed respecting some cases of general eczema in senile persons that it is very difficult to distinguish them from the disease known as pityriasis rubra, or dermatitis universalis. In the whole domain of eczema we must keep clearly in mind the fact that individual peculiarities in the organisation of the skin are the fundamental predisposing cause. Mr. Hutchinson says eczema in association with acute attacks of gout and the formation of tophi is undoubtedly very rare. He remembers very few instances indeed in which he has met the two conditions together. He is quite prepared to admit, however, that certain articles of diet, such as milk, sugar, and some kinds of fruit, may have the effect of making the skin irritable, and thus increasing the tendency to eczema. Thus it may in some cases be advisable to regulate the patient's diet. In the majority of cases, however, nothing can be done by diet or drugs for the cure of chronic eczema or for the prevention of acute attacks, and to local treatment must we pay especial attention. That there is any one microbe which is the cause of the eczematous process in general appears to Mr. Hutchinson, in the light of clinical facts, improbable in the highest degree.

* * * *

Dr. Allan Jamieson[1] thinks it is somewhat singular that **disorders of the vermilion portion of the lips** receive in general but scant notice in most works on dermatology. The best known of these is the common herpes labialis, so often met with in association with an ordinary catarrhal attack, or in some febrile conditions with the subsidence of the pyrexial symptoms, but

[1] *Brit. M. J.*, 1895, ii. 1410.

occurring also quite independently of any such state. Painting the erythema or vesicles, as soon as they appear, with a film of flexible collodion checks the further progress and expedites the cure. In those of the male sex the protection of the beard and moustache when worn is a valuable prophylactic. Another and more troublesome affection of the lips is the formation of a small though deep and painful fissure in the centre of the lower lip, where the two halves from which it is developed become fused into one, or at the angles of the mouth, or, but less commonly, in the upper lip, on either side of the central portion of the three parts from the coalescence of which it is formed. The treatment of the fissures in the centre of the lip consists in scraping the whole surface carefully but thoroughly with a fine curette; then, when the bleeding has ceased, having approximated the edges by pressure, a film of salicylic wool is placed on and secured in place by painting over with flexible collodion. Great care must be enjoined to avoid stretching the part till firm union has been secured. Thus a very small spoon should be used, the morsels introduced into the mouth must be restricted in size, while fluids ought to be imbibed through a feeding cup. Those at the angles of the mouth, if antisyphilitic remedies are not called for, can usually be cured by cleanliness and the employment of an antiseptic ointment, such as 10 grains of salicylic acid in 1 ounce of cold cream. Eczema limited to the exposed portions of the lips is comparatively rare. The crusts should be softened and removed by aid of boric starch poultices applied cold. Strips of Unna's zinc ichthyol salve muslin should be closely and constantly laid on at night, the salicylic cold cream already mentioned repeatedly smeared on during the day, and, if anæmia is present, iron prescribed for internal use.

* * * *

In his introductory address as President of the Dermatological Society of Great Britain and Ireland, Dr. Joseph Frank Payne[1] said the most important problem relating to diseases of the skin is undoubtedly that of causation or etiology. The only branch of the **etiology** of diseases of the skin which can be discussed now is the action of **micro-organisms**. Many parts of the healthy skin harbour bacteria in immense numbers; but the problem arises whether they are merely more or less harmless saprophytes, or in any way pathogenic. In various morbid conditions of the skin, also, bacteria have been found; and here again the question is whether they are really pathogenic. Among the forms most frequently met with are micrococci. Certain species of these—viz., Staphylococcus pyogenes aureus, S. albus, and the rarer S. citreus—occur in many suppurative affections of the skin, as impetigo, ecthyma, pustular acne, folliculitis, sycosis, boils, carbuncles, whitlows, and so on. There can be no doubt that these organisms are really the cause

[1] *Brit. J. Dermat.*, 1896, viii. 267.

of suppuration, though other agencies co-operate. It is, however, to be remembered that these staphylococci are often found as saprophytes in various parts of the skin, as in moist surfaces between the toes, dirt under the nails, scurf on the scalp and elsewhere. They are, in fact, widely present in or on the human skin, without requiring to be introduced from without; and though sometimes present, as it seems, in dwellings and on clothing, have not an important ectogenic existence. Hence external septic infection as producing suppuration is now recognised as a less serious risk in surgery than that of personal contagion. Dr. Payne asked, What is the difference between the highly contagious character of impetigo contagiosa, which approaches that of a specific disease, and the inert saprophytic character of the staphylococci in other cases? The difference depends upon a gradual evolution of virulence, which may be clearly traced in some cases. For instance, a healthy young person may have a wound on the foot. This, influenced by the saprophytic cocci of the part, suppurates. The cocci cultivated in this local inflammation become sufficiently virulent to produce vesicles and pustules in the neighbourhood. Transferred thence by the finger-nails to the face, a classical impetigo contagiosa, with inflamed glands, may result, which precisely resembles an impetigo conveyed by inoculation from another person. This may in certain cases give rise to contagion, spreading to another individual, since cultivation with abundant access of air seems to give these aerobic organisms increased virulence. Finally, transmission from one case to another in rapid succession, according to a well-known pathological law, still further heightens their virulence, till at length the acute, contagious, and apparently specific disease results. The same progressive evolution of virulent properties may also, it should be noticed, be traced in other cases. For instance, the pneumococcus and other bacteria of pneumonia are occasionally found in the mouths of healthy persons, without producing disease, and the same is true of the bacillus diphtheriæ, which, however, if transferred to another person, may be highly pathogenic. The gradual evolution of epidemics of diphtheria out of what is called a simple sore-throat may also receive a similar explanation.

Of the **etiology of eczema** Dr. Payne inclines to the view that there are microbes originally present in the skin, and that when their activity is heightened by some trauma, or disturbance of nutrition, eczema results. It rarely happens that the microbes of eczema acquire such virulence as to produce actual contagion to another individual. In a disease so multiform as eczema it is probable that several species of bacteria may be concerned.

* * * *

An inquiry into the **plurality of fungi causing ringworm** in human beings as met with in London has been undertaken by Drs. Colcott Fox and Blaxall.[3] The material was collected

[3] *Brit. J. Dermat.*, 1896, viii. 241.

from each case in small bottles of ether. The ether was subsequently poured off and replaced by liquor potassæ (B. Ph.) of about 7 per cent. strength. Sabouraud recommends that hairs should be placed in liquor potassæ of 40 per cent. strength, and then carefully warmed. The softened specimens are floated on to the slide, and care taken not to disarrange the position of the fungus by pressure of the cover-glass. The clinical appearances were carefully noted, and an endeavour made to trace the source of infection. Cultures were also obtained by the inoculation of suitable media. They agree with Sabouraud that the ringworms met with in human beings comprise two affections caused by fungi quite distinct from one another, clinically, morphologically, culturally, and botanically. The more frequent one is caused by the *Microsporum Audouini*. The less frequent one is caused by various species of *Trichophyton* fungus.

The **Microsporum** is a ringworm with small spores, which vary in size within certain limits, are primarily round or oval, and become polyhedral by pressure. It is an affection of early childhood; invariably respecting the scalp of adults. It never produces sycosis of the beard, and does not attack the nails. It is the most extensive, contagious, and rebellious of scalp ringworms, and the most frequently epidemic. The hairs in the patch are all broken off at different lengths, forming relatively long stumps, which are slender, decolorised, greyish, and break off within the follicle when pulled. They possess a white coating for a little distance beyond the follicle. The hair itself is filled with extremely delicate parallel mycelial threads, of which the largest, and also the central, ones have delicate septa at long intervals.

The **Trichophyton** comprises the ringworms with comparatively large spores. They are divisible into two great groups: the one apparently of exclusively human origin, characterised by a marked tendency to affect only the interior of the hair when that structure is attacked, and hence denominated *Trichophyton megalosporon endothrix;* the other apparently of animal origin, and locating itself chiefly between the wall of the follicle and the hair, as well as entering the shaft, and hence called *Trichophyton megalosporon ectothrix* or *endo-ectothrix*. The *endothrix* fungus may occur rather later in childhood than the *microsporum* ringworm, and is on the whole not so persistent. It has not been found to produce a parasitic sycosis of the beard, nor does it attack the nails. The glabrous skin is, however, frequently involved, and circinate lesions result. Family epidemics occur. As in all trichophytic scalp-lesions, an epidemic circination precedes the parasitic invasion of the hair, but is fugacious, and little marked. The hairs are much swollen, darkened in colour, broken off very short, and are without a pseudo-epidermic, white parasitic sheath. The hairs break off on a level with the skin here and there, and the surface of the patch is riddled with black points like comedones. Adults may be affected. The fungus consists

of mycelial filaments, composed of double-contoured cells (except one ovoid spore variety), which are the mycelial spores, joined end to end. These sporulated threads are closely packed side by side *within* the whole extent of the diseased stump. According to Sabouraud, the second group of the Trichophyton family is composed of the varieties of *Trichophyton megalosporon ectothrix*, which are, as already stated, of animal origin. They are responsible for a very small minority of scalp ringworms—perhaps 5 per cent.—but for all beard sycosis of the ringworm order, and for ringworm of the nails. They cause more than half the cases of tinea circinata, and, reckoning all sites, about half of the trichophytic ringworms. The lesions from these are all readily cured in a few months. The fungus is found on microscopical examination to be limited to the intrafollicular region, or rarely to affect the hair itself, hence the term "endo-ectothrix." As in all the trichophytons, the spores are agminated in chains, but the sporulation is less regular than in endothrix. Sabouraud some time ago had isolated fourteen species of *ectothrix trichophyton* in two hundred and thirty cases consecutively examined. The authors of this paper find that the fungus answering clinically and microscopically to *microsporum* causes something like 80 to 90 per cent. of ringworms met with in London. Sabouraud believes that the scalp is implicated secondarily to the hair when the fungus is *Microsporum Audouini*, and in this contrasting with the trichophytons. The authors of this paper disagree with this view. They say if the skin of a ringworm patch of the scalp be examined in the early spreading stages there is always a quantity of mycelial feltwork present, even before the hairs are appreciably affected, and that this tinea circinata character disappears *pari passu* with infection of the hairs. They agree with Adamson on this point.

* * * *

Dr. James Galloway[1] says the word lupus has come to bear so distinctly the tubercular stamp that most will agree that it is a pity that **lupus erythematosus** ever received the name. Almost universally the latter disease is considered to be a completely separate entity, and to have nothing in common with tuberculosis of the skin. Its relations to conditions produced by defective circulation, especially to diseases of the chilblain group, have long been emphasised by English authorities.

Dr. Brocq[2] quotes the case of one of his own patients who for years suffered from severe lupus vulgaris (non-exedens) which resisted all forms of local and general treatment. This patient also suffered from recurrent attacks of lupus erythematosus of the fingers, which was controlled by the exhibition of iodoform. Death occurred, however, preceded by symptoms exactly resembling those produced by Koch's tuberculin. Brocq bases the opinion that in a focus of tuberculosis—*e.g.* lupus vulgaris—

[1] *Practitioner*, 1895, lv. 493.
[2] *J. Cutan. & Genito-Urin. Dis.*, [1895], xiii. 345.

EDWARD JENNER, M.D., F.R.S.

Born May 17th, 1749.
Died Jan. 26th, 1823.

toxins may be elaborated which on absorption produce conditions of erythema, and that one of these is lupus erythematosus. Brocq would thus include lupus erythematosus in the same category as urticaria and the symptomatic erythemata. In support of his views he brings forward the numerous cases of transient lupus erythematosus, and other cases in which large areas of erythema appear and gradually vanish, leaving only the central atrophic portion of skin so typical of this affection. He also suggests that lupus erythematosus may possibly be caused by poison in the circulation, causing vaso-motor paralysis, in certain cases possibly absorbed from foci of tubercular disease.

HENRY WALDO.

JENNER.

There is no need here to enter into the details of the early work in connection with vaccination; for in this centenary of its discovery Jenner's praises have been sung and his beneficent work has been celebrated with much pomp and circumstance in many journals.[1] But as it would not be quite in accordance with the fitness of things that a medical periodical published in his own county should allow the occasion to pass unnoticed, we are glad to be able to reproduce a portrait of him which has not been previously issued. The picture on the opposite page is the exact size of a water colour now in the possession of the family of the late Mr. William Smith, formerly in practice in Pembroke Road, Clifton. Its history is interesting. A Society with which Jenner had been connected was desirous of having his portrait, for which he sat to a local artist, whose name, owing to the unfortunate loss of documents, is not known. In course of time the picture became by purchase the property of Mr. George Smith, the father of Mr. William Smith and grandfather of Mr. Munro Smith, to whom we are indebted for the obtaining of the picture. Mr. George Smith, who was at the time living at Berkeley, and was a personal friend of Jenner's, considered it a very accurate likeness. In the original picture the face is fresh-coloured, the eyes are blue, and the hair is grey.

[1] Reference should be made to *Practitioner*, May; *Münchener medicinische Wochenschrift*, May 12; *Nederlandsch Tijdschrift voor Geneeskunde*, May 16 *Australasian Medical Gazette*, May 20; *Boletin del Consejo superior de Salubridad* May 22; *British Medical Journal*, May 23; *Gazette médicale d'Orient*, August 15

Reviews of Books.

A Manual of Physiology. By G. N. Stewart, M.D. Pp. 796. London: Baillière, Tindall and Cox. 1895.

This is a carefully-written text-book of Physiology, embodying the results of the latest research in a subject which has developed so rapidly within the last few years that it is becoming more and more difficult to compress the necessary matter into a volume of moderate size. The author has, however, well fulfilled the difficult task he has undertaken, and succeeded in placing before his readers a clear outline of both theoretical and practical physiology; and has moreover included a great deal of histology. The latter is well illustrated by drawings and coloured plates; and the diagrams throughout the book are helpful and well done.

At the end of each chapter is a practical exercise which will be useful to students, and still more perhaps to demonstrators who have not had a great deal of experience in the laboratory. Some of these exercises are, almost necessarily, incomplete; and some require further explanation. But the amount of matter is so great, that too great conciseness is doubtless here and there unavoidable. Perhaps the most valuable feature is this blending of practical exercises with the statement of physiological facts; for it is of the greatest importance that students should realise from the first that physiology is nowadays an experimental science, and that laboratory work is an actual necessity. The chapters on muscle and nerve may be cited as good examples of this judicious combination, and we notice with pleasure the pains that have been taken to render these difficult subjects clear to the reader. The special senses are brought well up to date, but we could wish that smell and taste had received a little more space. The last chapter is a short account of the chief phenomena of reproduction, which may serve as an introduction to the subject, for it is too short to be of much service.

The style is clear and straightforward; there is nothing to be specially noted about it. The type is good, and there are very few errors. We regret that the index is imperfect. For example, there is nothing under the letter T; and in such a book, which will, we hope, be extensively used for reference, there should be every facility for quickly finding any special subject. This is a fault which can easily be remedied.

The Physiology of the Carbohydrates. An Epicriticism by F. W. Pavy, M.D., F.R.S. Pp. xix., 141. London: J. & A. Churchill. 1895.

This volume gives a very interesting record of the difficulties which the founders of "new truths" have to encounter. The author is well able to defend himself, and does so with vigour, both as regards the criticism of the physiologist, and the officers of the Royal Society. He submits that Dr. Paton's criticism has nowhere touched even the fringe of his position, and it seems likely that the portals of the Philosophical Transactions will be somewhat more zealously guarded in the future.

A Manual of the Practice of Medicine. By George Roe Lockwood, M.D. Pp. 935. Philadelphia: W. B. Saunders. 1896.

A text-book of medicine, of good type, complete in less than a thousand octavo pages, certainly deserves to be spoken of as concise and available. The classification of Osler has been adopted, and the book is well illustrated with twenty-two full-page coloured plates and seventy-five illustrations in the text. The book is an excellent one for the student, and quite deserves its position as one of a new aid series. It is well revised and has a good index. The matter appears to be well up to date, and free from mistakes of any kind.

The Treatment of Pulmonary Consumption. By Vincent Dormer Harris, M.D., and Edwin Clifford Beale, M.B. Pp. viii., 483. London: H. K. Lewis. 1895.

The treatment of pulmonary consumption has undergone many and great changes during the last decade: formerly the diagnosis having been established, the unfortunate patient was left to his fate so far as any curative measures were concerned. *Mais nous avons changé tout cela.* Now it requires a volume such as this to give a fairly full review of the subject, and even then it might be said that some of the points are only very lightly touched upon. For instance, the use of antiseptic injections made into the lung itself has been largely adopted both on the Continent and in America; but the whole subject is here adversely criticised and dismissed in a dozen lines. As regards the use of creasote, the authors are of opinion that its effects upon tubercular disease appear to have been altogether exaggerated, and they hold that creasote cannot be considered to be either so powerful for good or for evil as has been supposed. This experience is so at variance with that of most modern observers, who hold that of all the drugs which have been employed in the treatment of tubercular affections, creasote (not,

Reviews of Books.

A Manual of Physiology. By G. N. Stewart, M.D. Pp. 796. London: Baillière, Tindall and Cox. 1895.

This is a carefully-written text-book of Physiology, embodying the results of the latest research in a subject which has developed so rapidly within the last few years that it is becoming more and more difficult to compress the necessary matter into a volume of moderate size. The author has, however, well fulfilled the difficult task he has undertaken, and succeeded in placing before his readers a clear outline of both theoretical and practical physiology; and has moreover included a great deal of histology. The latter is well illustrated by drawings and coloured plates; and the diagrams throughout the book are helpful and well done.

At the end of each chapter is a practical exercise which will be useful to students, and still more perhaps to demonstrators who have not had a great deal of experience in the laboratory. Some of these exercises are, almost necessarily, incomplete; and some require further explanation. But the amount of matter is so great, that too great conciseness is doubtless here and there unavoidable. Perhaps the most valuable feature is this blending of practical exercises with the statement of physiological facts; for it is of the greatest importance that students should realise from the first that physiology is nowadays an experimental science, and that laboratory work is an actual necessity. The chapters on muscle and nerve may be cited as good examples of this judicious combination, and we notice with pleasure the pains that have been taken to render these difficult subjects clear to the reader. The special senses are brought well up to date, but we could wish that smell and taste had received a little more space. The last chapter is a short account of the chief phenomena of reproduction, which may serve as an introduction to the subject, for it is too short to be of much service.

The style is clear and straightforward; there is nothing to be specially noted about it. The type is good, and there are very few errors. We regret that the index is imperfect. For example, there is nothing under the letter T; and in such a book, which will, we hope, be extensively used for reference, there should be every facility for quickly finding any special subject. This is a fault which can easily be remedied.

The Physiology of the Carbohydrates. An Epicriticism by F. W. Pavy, M.D., F.R.S. Pp. xix., 141. London: J. & A. Churchill. 1895.

This volume gives a very interesting record of the difficulties which the founders of "new truths" have to encounter. The author is well able to defend himself, and does so with vigour, both as regards the criticism of the physiologist, and the officers of the Royal Society. He submits that Dr. Paton's criticism has nowhere touched even the fringe of his position, and it seems likely that the portals of the Philosophical Transactions will be somewhat more zealously guarded in the future.

A Manual of the Practice of Medicine. By George Roe Lockwood, M.D. Pp. 935. Philadelphia: W. B. Saunders. 1896.

A text-book of medicine, of good type, complete in less than a thousand octavo pages, certainly deserves to be spoken of as concise and available. The classification of Osler has been adopted, and the book is well illustrated with twenty-two full-page coloured plates and seventy-five illustrations in the text. The book is an excellent one for the student, and quite deserves its position as one of a new aid series. It is well revised and has a good index. The matter appears to be well up to date, and free from mistakes of any kind.

The Treatment of Pulmonary Consumption. By Vincent Dormer Harris, M.D., and Edwin Clifford Beale, M.B. Pp. viii., 483. London: H. K. Lewis. 1895.

The treatment of pulmonary consumption has undergone many and great changes during the last decade: formerly the diagnosis having been established, the unfortunate patient was left to his fate so far as any curative measures were concerned. *Mais nous avons changé tout cela.* Now it requires a volume such as this to give a fairly full review of the subject, and even then it might be said that some of the points are only very lightly touched upon. For instance, the use of antiseptic injections made into the lung itself has been largely adopted both on the Continent and in America; but the whole subject is here adversely criticised and dismissed in a dozen lines. As regards the use of creasote, the authors are of opinion that its effects upon tubercular disease appear to have been altogether exaggerated, and they hold that creasote cannot be considered to be either so powerful for good or for evil as has been supposed. This experience is so at variance with that of most modern observers, who hold that of all the drugs which have been employed in the treatment of tubercular affections, creasote (not,

as the authors say, cod liver oil) stands first, that we have endeavoured to ascertain on what grounds the authors formed their conclusion. It is generally admitted that the value of the drug varies in proportion to the dose which the patient is able to take; but here we find that "it is seldom necessary, or indeed advisable, to give more than twenty to thirty minims, and, generally speaking, six to fifteen minims in the twenty-four hours is *a sufficient dose*" (the italics are ours). We wonder in what sense it is sufficient. Clearly in the authors' experience the results were not what they would wish, and yet the dose was considered to be sufficient, *i.e.* sufficient to satisfy the views of the authors, but not sufficient for the needs of the patient. We think that a more liberal use of the drugs of the creasote type might give more satisfactory results, and prove that these drugs are both potent for good, even more good than the authors lead us to expect, and for harm when given in very large doses in the late stages of the disease. We have rarely any difficulty in getting patients to take sixty or ninety minims of the pure drug in twenty-four hours, and the more completely we can saturate the patient the more likely shall we be to modify the development and growth of the bacilli in the lungs. Doses such as this are, however, not to be given when the degree of prostration is great, as they produce toxic results and add to the prostration: in cases of this kind we have sometimes thought that they accelerated the death of the patient.

We must refrain from further criticism of a book which is a mine of wealth, and which is probably the most complete on the subject which has ever been written in this or any other language. It is a book to be first studied, then kept at hand for reference, and concerning which the opinion of any reviewer should count for little or nothing.

Lectures on Appendicitis and Notes on other Subjects. By Robert T. Morris, M.D. Pp. viii., 163. New York: G. P. Putnam's Sons. 1895.

The author thinks that a favourable time has come "for blazing one clear trail through the subject" of appendicitis, which occupies about half the volume, and he has really "blazed" very well. He knows what he wants to say and says it, tersely, clearly and forcibly. The book may be regarded as a concise account of the "American view" of appendicitis, and the author's style and opinions will be gathered if we quote from p. 36. "There is but one rule to be followed, and that is to isolate an infected appendix as promptly as we would isolate a case of diphtheria. . . . An infected appendix is isolated when it is out of the patient." On this side of the Atlantic most of us do not take quite so radical a view of appendicitis as those in America; but in spite of this we think—and we mean it as a

compliment—that this is one of the most "pleasant" books we have read on this subject. The notes on various themes have not perhaps the same literary elegance; but they show that the author thinks and works on his own lines. The best of them are those which treat of Gall-stone Solvents, The Drainage Wick, and Subluxation of the Radius. There is a good index, some excellent illustrations, and the paper, printing and binding leave little to be desired.

Traumatic Infection. By CHARLES BARRETT LOCKWOOD. Pp. 138. Edinburgh: Young J. Pentland. 1896.

The book is a reprint of the Hunterian lectures delivered at the Royal College of Surgeons last year. It deals exhaustively with the various forms of micro-organisms, which produce such diseases as septicæmia and septic peritonitis, their modes of infection, and the result of their growth in the tissues. A case of angina Ludovici, in which a mixed infection of a very complicated kind was found is recorded, and the very interesting question of the relation of hectic fever to septicæmia is discussed. The work is well illustrated with pictures of micro-organisms in the tissues. As a record of much laborious original investigation, and as a reference to the work of others in the same department of study, the book is of great value.

Pregnancy, Labor, and the Puerperal State. By EGBERT H. GRANDIN, M.D., and GEORGE W. JARMAN, M.D. Pp. viii., 261. Philadelphia: The F. A. Davis Company. London: F. J. Rebman. 1895.

In December, 1895, we reviewed *Obstetric Surgery*, a work by the authors of this volume, which, however, regards midwifery, as much as possible, from a medical point of view. Now, in the art and science of obstetrics, the practice of medicine and of surgery are so intimately connected together, that any attempted divorce of this kind is both difficult to effect and not particularly happy in the results which follow. The same remark holds good with regard to other sciences, which in such a comprehensive branch of general practice as midwifery are closely intermingled, such, for instance, as biology, embryology, physiology, pathology, &c. They cannot be dissociated and dislocated from one another, but must be allowed to remain together as one harmonious whole. Upon this principle all our standard and classical works on Midwifery, both old and new, have been composed, and we do not wish to see so good a plan deranged, at least in those which are primarily intended as text-books for students.

Like its predecessor, the present work is exceedingly well got up, equally as regards paper, type, and illustrations.

Although the graphic art is much more sparingly employed than in *Obstetric Surgery*, the authors consider this feature of the book to be one of its chief merits, if we may judge from the following remark in the preface:—"In the matter of illustration, fidelity to nature has been the aim rather than attempt at artistic effect. It has not been deemed advisable to insert the numerous wood-cuts which from time immemorial have been copied from one work to another, since the majority teach nothing which cannot be learned to better advantage at the bedside,—indeed, which can only be properly learned there." Unfortunately the "New Photography" has not yet rendered the human body so transparent that we can see at a glance the various malpresentations of the fœtus *in utero*; but are still obliged to find them out by palpation at the bedside. The often copied woodcuts and diagrams convey more exact ideas to a student's mind than any that can be derived from photographs of the external parts of the woman's body. These it would have been better to have omitted, as well as the ridiculous-looking costume in which she herself and often a multiplicity of attendants are enveloped. For instance, there are stiff, straight figures of a pregnant woman, like a corpse wrapped in a winding-sheet, which covers every part of her body except the enlarged abdomen and breasts. Another photograph purporting to represent the coloured areola of the breast in pregnancy, which is represented by a monotonous shade of brown like "burnt umber," is vastly inferior to the life-like tints of nature so faithfully portrayed in Montgomery's classical work, the *Signs of Pregnancy*. In some other photographs representing the phenomena of labour, very little of the parturient woman is seen, except the parts immediately concerned in the process; all the rest of her is hidden by white winding-sheets, and as many as five attendants are around her clad in costumes like those worn by French cooks, and suggesting the idea that the "broth is likely to be spoilt by too many cooks." Such is the amount of knowledge which the student would be likely to gain from representations in every respect inferior to the much despised outline drawings and diagrams by which the "men-midwives" of old used to impart knowledge to their pupils. As the authors of this volume justly remark, the signs of pregnancy and commencing labour can only be learned at the bedside. In learning midwifery, we gain next to nothing from the sight and still less from photographic plates. In fact these, upon which the authors pride themselves, seem to us a failure as regards teaching, and, as regards appearance, even less ornamental than they are useful. We are glad, however, to mention a few exceptions to this rule, such, for instance, as Plates XII., XIII., and XIV., representing the fœtal skull, and which are only inferior to the dried crania from which they are taken.

The general arrangement of the work on the whole is good, and the directions especially as to treatment are well and clearly ex-

pressed. The treatment, however, on the whole is too medical, and, as we remarked before, too much separated from surgery. When any operation is needed we are at once referred by the authors to their *Obstetric Surgery*. The book is divided into three parts: (I.) Pregnancy, normal and abnormal; (II.) Labour, natural and unnatural, including also the care of the new-born infant; (III.) The Puerperal State, both normal and pathological. Now, although the treatment adopted in abnormal cases is as purely medical as possible, the authors have no objection to using the strongest and most "heroic" remedies, both internal and external, especially in cases of septicæmia. For instance, we read in page 231: "If the site of infection is a perineal wound which has been sutured, the stitches should at once be removed, the infected surface washed off with bichloride solution 1 to 5000, and then cauterized with nitrate-of-silver solution 60 grains to the ounce." A number of milder remedies are then recommended to follow these. In that very rare but dangerous complication of labour, inversion of the uterus, we are told that should all attempts to reduce the inversion fail, "the sole resource—desperate as it is—is to open the abdomen and stretch the contraction ring." Thus obstetric surgery is called in as a last resource; but verily its tender mercies are cruel after those of obstetric medicine!

The only further remark we have to offer is, that if *Obstetric Surgery* and *Pregnancy, Labor, and the Puerperal State* had been judiciously blended together, omitting a number of showy but nearly useless photographs, and substituting for them some simple woodcuts, a good practical volume on Midwifery, at a very moderate cost, would have been the result.

An American Text-Book of Surgery. Edited by WILLIAM W. KEEN, M.D., and J. WILLIAM WHITE, M.D. Second Edition. Pp. xv., 1248. Philadelphia: W. B. Saunders. London: The Rebman Publishing Company, Ltd. 1895.

This text-book of surgery is the joint work of thirteen American surgeons, among whom are found most of the best known names on the other side of the Atlantic. The whole work has been harmonised by the two editors, so that it appears like the effort of a single writer. The entire book (we are told in the preface) has been submitted in proof-sheets to all of the authors for mutual criticism and revision; it may therefore be said to express upon important surgical topics the consensus of opinion of the surgeons who have joined in its preparation.

Many of the illustrations are original, and great care has been taken to credit other authors where illustrations have been borrowed from their works.

The work is designed as a text-book for students and practitioners, and we think it will admirably serve its purpose.

In such a work as this descriptions are necessarily brief, and the book makes no pretence of replacing one of the larger systems of surgery; but for the student who is reading for an examination, or for the practitioner who wishes for a handy work of reference, we know of no book on surgery superior to this one.

Among the more recent introductions of surgery we notice an excellent short account of the principal operations for removing the Gasserian ganglion, including Rose's method and the method recommended by Krause and Hartley. Barker's operation for fractured patella is described and illustrated. Macewen's method of treating thoracic aneurysm by introduction of pins; Wyeth's bloodless method of amputating at the hip- and shoulder-joints; the various operations for radical cure of hernia, including Bassini's, Halsted's, Macewen's, and Ball's; the operation of castration for prostatic hypertrophy are all examples of modern methods of treatment well described in this book.

Chapters are found on diseases of the eye and ear, but these are so incomplete, especially the latter, that we have doubts about the advantage of their introduction. A good, though brief, account of diseases of the brain arising from suppurative disease of the ear is given, and the various operations described.

The surgery of the abdomen is well done, and the illustrations are mostly original and good; but Murphy's button meets with scanty notice and still more scanty praise, and no directions whatever are given for using it. In the operation of gastrostomy we are told that in "all instances in which the patient's strength warrants the performance of the operation in two stages, as was first suggested by Mr. Howse, this method should be practised, as it is much safer than that by which the stomach is opened at once." We take leave to doubt the truth of this; and we still further object to the recommendation given to suture the parietal peritoneum to the edge of the skin incision.

In the chapter on rheumatoid arthritis, we are pleased to see that reference is made to Dr. Spender's observations on certain symptoms that are developed early, before any distinct evidence is afforded of articular changes.

We congratulate the editors upon the success of their first edition, and we can safely prognosticate a continued success for this second edition.

Aids to the Analysis of Food and Drugs. By T. H. Pearmain and C. G. Moor. Pp. 160. London: Baillière, Tindall & Cox. [1895.]

The preface of this work contains the following sentences, which deserve the careful consideration of those who advocate the extension of the already unwieldy medical curriculum:—

"This work is not intended to be used as a cram-book for examinational purposes. We cannot emphasise too strongly the fact that food analysis is not to be taught in a few weeks, as is frequently attempted in the interest of public health students. A competent knowledge of the analysis of food and drugs is only to be attained by some years of active practical laboratory work." With this before us it becomes interesting to discover how such a mass of work can be adequately described in 140 small pages, the whole of which might be committed to memory by a fairly diligent student within the shorter time mentioned.

Now on endeavouring to put the processes as described into practice, it becomes apparent that, in the effort to condense as much as possible, explanatory details have been omitted to such an extent as to render the directions frequently unintelligible to the student, and occasionally entirely misleading. For instance, the very important process of butter analysis known as the Reichert-Meissl method modified by Wollny, who, by the way, is not mentioned, and the method for the detection of boric acid, both suffer so severely from the omission of necessary detail as to be quite incapable of yielding useful results; whilst it is hardly fair to lead the student to expect a satisfactory milk residue after treating the weighed quantity for three hours *on* and three hours *in* the water-bath. (The italics are the authors'.) And yet these descriptions are generally so free from direct misstatement that if transferred bodily to a written examination paper they would no doubt pass muster.

In fact, had the authors set out with the explanation that, in view of the heterogeneous jumble of information required of the public health student, there was urgent need of an undisguised cram-book which should provide in the most condensed form such descriptions of processes for the analysis of foods and drugs as would satisfy the examiner, they would have commanded our entire sympathy. For this is certainly one of the best examples of this much-abused class, the extent and general accuracy of the information conveyed in so small a compass being quite remarkable. Indeed the authors have interpreted the expression "Food and Drugs" in the most liberal manner, and have included articles upon soaps and urine. Altogether the book is one that can be strongly recommended to the examinee, whilst it is hardly likely to be of much service to the practical analyst.

Conditions under which Leprosy has Declined in Iceland. By EDWARD H. EHLERS, M.D. **Leprosy in South Africa.** By S. P. IMPEY, M.D. **On Spontaneous Recovery from Leprosy.** By S. P. IMPEY, M.D. Pp. 79. London: Macmillan & Co. 1895.

These three essays are issued together in one volume, under the auspices of the National Leprosy Fund. The first contains

a very interesting account of the history of leprosy in Iceland; but we cannot compliment the Government of the country on the sanitary steps they have taken to deal with the disease. If some intelligent medical officers of health could have their sway there, they could establish a reputation, for even ordinary cleanliness and decent sanitary arrangements seem very much neglected. By the middle of the 16th century leprosy was so extensive in the island, that Gislasen reports that about this period they never mentioned the name of the disease without adding "May God in His mercy save us!" If with this they had combined the next thing to godliness, cleanliness, their prayers might have been answered. It is very difficult to ascertain the number of cases of leprosy in Iceland, because a great many are hidden away; but in 1895 Dr. Ehlers considered they were not fewer than two hundred. It is interesting to notice that three-fourths of the cases are on the south-west coast. It was here that the disease was first imported. This is the part which sustains the commercial communication with other countries, and here the great epidemics of measles, scarlet fever, and small-pox have had their first incidence. Many other parts of Dr. Ehlers's well-written essay are of much interest.

As regards leprosy in South Africa, Dr. Impey shows that until the middle of the last century, leprosy was not prevalent in European settlements; but there is no question that it had existed long before amongst the aborigines, and that the Hottentots (a nomadic race) had spread the disease, as also the Griquas, who were an offshoot from the Hottentots, and that owing to only very indifferent precautions, the disease has been spreading during the last fifty years. From a table (p. 56) of the number of lepers at present known in the various South African colonies and states there would appear to be about 1750, and if only all cases could be segregated like those at Robben Island, about ten miles north-west from Cape Town, where 1,697 have been admitted since 1845, and of which 776 have died (and the various Governments are awakening to the fact that they must do something to check the spread of the disease), Dr. Impey's interesting accounts and statistics will not have been compiled in vain.

Dr. Impey's communication "On Spontaneous Recovery from Leprosy," is an important one. It has been observed from time to time that an attack of measles, small-pox, or erysipelas occurring in a leprous subject may bring about the cure of the leprosy, and as these diseases depend upon a bacillus, the author points out and tries to confirm the idea that the bacilli of these complaints are stronger than the germs of leprosy, and therefore thrust the weaker ones to the wall, and he suggests that the vaccination of lepers with these same bacilli may effect cures of leprosy. It may be that the incidence of these complaints uses up the pabulum that the bacillus lepræ thrives upon. Anæsthetic leprosy would seem, however, in

some cases to work out its own cure in time, and the author gives some valuable evidence to show that patients who live for more than eleven years after having been attacked with this form are practically cured, although they may bear the marks, so to say, of the disease—just as small-pox patients may display severe brands of their attack, but yet are not suffering from small-pox. Thus perforating ulcer very frequently is kept up, not by leprosy, but by the bare bone beneath being diseased. Remove this latter and the ulcer heals. In these cases (self-cured) when the anæsthetic parts are accidentally injured, as must occur occasionally, these wounds do not show any leprous taint; they heal well, and tissue-sections display no bacilli.

Galen. By JAMES FINLAYSON, M.D. Pp. 55. Glasgow: Alex. Macdougall. 1895.—This is a most welcome pamphlet, enabling the reader to get in short space an ample grasp of the work of one who, as anatomist and practitioner, dominated medical life for centuries. By means of appropriate quotations and comments, the reason of this influence is well set forth by Dr. Finlayson, whose monograph consists of two bibliographical demonstrations given in the Library of the Faculty of Physicians and Surgeons of Glasgow. Every librarian who has facilities for doing so should follow Dr. Finlayson's excellent example.

A History of the Chronic Degenerative Diseases of the Central Nervous System. By THOMAS KIRKPATRICK MONRO, M.D. Pp. vi., 82. Glasgow: Alex. Macdougall. 1895.—The title sufficiently indicates the scope of this work, which is reprinted with some slight alterations from the *Glasgow Medical Journal* for 1895. The labours of our predecessors in differentiating and defining diseases are too soon forgotten, and it is well that we should be reminded of the men to whose painstaking researches we owe so much. What Dr. Monro has done for the chronic degenerative diseases of the nervous system might well be done for other diseases. In reading the book one cannot but be struck with the fact that all real knowledge of these diseases has been the work of the last fifty years, and this affords a hopeful augury that the labour and attention now given to this subject by so many skilled workers will result in the accurate definition of many conditions which still remain obscure. The book is well written, and printed in excellent type. The author must be congratulated on having produced a work of much interest, especially to those engaged in the study of nerve diseases.

Velada Fúnebre en Honra del Eminente Sabio Francés Luis Pasteur. Pp. 48. Mexico. 1895.—The National Academy of Medicine of Mexico, always a great admirer of the genius of Pasteur, felt itself profoundly moved by the news of his death, and, to mark its sorrow at the sad event, adjourned the Session of the 2nd October, when the President of the Association

officially announced his decease. The members of the Society, also desiring to make a public manifestation of their condolence and to honour the memory of this illustrious man, determined to celebrate a funeral vigil, the proceedings of which are recorded in this publication. So many wished to be present that the Chamber of Deputies was lent for the purpose. The President of the Republic, the Ministers of State, the French Consul and other foreign representatives, and the greater part of the men known to science and politics were invited to be present. The Chamber was draped with black and wreaths of laurel, and under a canopy formed by the flags of all nations was placed a large photograph of Pasteur. In the intervals of the addresses solemn music from Beethoven and Verdi was played by the band. The first oration was delivered by Dr. Angel Gaviño. It was of a most eloquent character, and was attentively listened to by the large assembly. He traced the history of this gifted scientist from his early days to the 27th of December, 1892, when he was presented with a gold medal by the Academy of Medicine, on which were engraved the words, "Science and Humanity are grateful to thee." His discoveries in lactic and alcoholic fermentation were described at length, and his investigations into the diseases of the silkworm, by which so large an industry of France was seriously affected; his researches in bacteriology, and, finally, his inoculations for hydrophobia were passed under review, and an impressive address was concluded with the words: "Gentlemen, to venerate such savants as he was is the fortunate privilege of civilised nations, and the example of his self-denial, constancy, and philanthropy will serve for generations to come as the model of the virtues which conduce to immortality." This was followed by the recitation of a poem specially composed for the occasion, and a speech to the same effect from Dr. Ramos.

Index-Catalogue of the Library of the Surgeon-General's Office, United States Army. Vol. XVI. W. — ZYTHUS. Washington: Government Printing Office. 1895.—Another volume of this eminently useful work has reached us. We have frequently expressed our admiration of it, and a further acquaintance fully justifies the high praise universally bestowed upon it. Some slight idea of the magnitude of the undertaking can be gathered from the fact that the mere titles of the periodicals used in the compilation of the work form a volume of 282 pages. We are glad to learn that a second series will be commenced at once.

The Schott Treatment for Chronic Heart Diseases. By RICHARD GREENE. Pp. 16. London: The Scientific Press, Limited. 1895.—In this little book Dr. Greene gives a lucid account of the treatment for heart-disease conducted at Nauheim. He adds his testimony to that of others that some cases of heart-disease markedly improve under its use, especially examples of simple dilatation without valvular disease.

Practical Uranalysis and Urinary Diagnosis. By CHARLES W. PURDY, M.D. Second Edition. Pp. xviii., 357. Philadelphia: The F. A. Davis Co. London: F. J. Rebman. 1895.—That a second edition of this book has been called for within a few months of the appearance of the first is sufficient evidence that it has supplied a want. Some further illustrations have been added and the text is said to have been carefully revised; otherwise it remains the same as in the first edition, which was recently reviewed in our columns.

A Practical Treatise on Materia Medica and Therapeutics. By JOHN V. SHOEMAKER, M.D. Third Edition. Pp. ix., 1108. Philadelphia: The F. A. Davis Company. London: The F. J. Rebman Co., Ltd. 1895.—This work, formerly issued in two volumes, is now more conveniently compressed into one volume. Testing the information by reference to sundry headings, we judge that the work has been thoroughly and carefully brought up to date, and we can but reiterate the opinion expressed in noticing the first edition, that it is an encyclopædia of therapeutics in the widest sense of the term unrivalled in the English language.

Rough Notes on Remedies. By WILLIAM MURRAY, M.D. Pp. 104. London: H. K. Lewis. 1896.—This small volume might well be described as the convictions of a sage observer in favour of the more active use of some well-known drugs. Fifteen minim doses of liq. arsenicalis, forty minims of tinct. belladonnæ, and eighty grains of calomel, are heroic doses, but their utility is abundantly demonstrated. The experienced practitioner has done his best to impart his methods for the guidance of others, who cannot fail to profit by a perusal of this much-needed record.

The Natural Arsenical Waters of La Bourboule. By A. M. BROWN, M.D. Pp. 38. London: The Sanitary Publishing Company, Ltd. [N.D.]—The water of the Choussy-Perrière spring at La Bourboule is now well known, and its use does not of necessity imply a visit to the Auvergne, inasmuch as every care is taken in bottling the water for transport. Its range of utility is as wide as that of the principal constituent which it contains—viz., the arseniate of soda,—and a visit to the mountainous districts of Central France, with residence at an elevation of two to three thousand feet, may form a most agreeable and health-giving summer holiday.

Health Notes for the Seaside: with special reference to Whitby and District. By A. C. DUTT, M.B. Pp. 61. Whitby: Horne and Son. 1895.—The modest author of this little book has, during the intervals of private practice, compiled a series of practical and useful essays, of the common-sense type, ranging from the composition of dust up to the nature of the soul. They are well worthy of better type, of a more pretentious dress, and

of more care in revision. An *édition de luxe* might well be provided by an enterprising publisher.

The Pharmacopœia of the Evelina Hospital for Sick Children. Second Edition. Pp. 53. London: J. & A. Churchill. 1896.—We notice a few additions in the new issue of this useful little book which make it more complete. There is no great originality in the prescriptions, but this one can hardly expect.

A Pharmacopœia for Diseases of the Skin. Edited by JAMES STARTIN. Fourth Edition. Pp. 53. Bristol: John Wright & Co. 1896.—No doubt there is some advantage in having a Pharmacopœia containing formulæ used in the treatment of skin affections, but we are very much surprised that a fourth edition (the cover calls it the third) of this work should have been required in its imperfect and somewhat crude condition. The forerunner of this little book is manifestly *The Pharmacopœia of the London Hospital for Diseases of the Skin*, published in 1848, the vague sentences and errors of which are here perpetuated. The classification of skin diseases is not up-to-date, and in the formulæ of remedies, as well as in the summary contained in the "Therapeutic Index," and especially under "Eczema," not a word is said about that very valuable remedy, salicylic acid. It is mentioned only—and that very casually—in the treatment of "Corns and Warts" and of "Pruritus."

Dental Materia Medica and Therapeutics. By JAMES STOCKEN. Fourth Edition. Revised by LESLIE M. STOCKEN and J. O. BUTCHER. Pp. 155. London: H. K. Lewis. 1895.—The new edition of this work is a most complete book of reference for all drugs that the dental surgeon may at any time want. As a matter of fact, it is the only book of the kind, as far as we know, which attempts to cull from a general Materia Medica the limited number of drugs which a dentist may wish to employ. It is well arranged and thoroughly well done.

Public Health Laboratory Work. By HENRY R. KENWOOD, M.B. Second Edition. Pp. xvi., 453. London: H. K. Lewis. 1896.—Since the issue of the first edition of this work, which was reviewed in this *Journal* in December, 1893, the opportunity has been taken of submitting it to a thorough revision; some processes given in the former edition have been replaced by others, and a considerable amount of new material has been added without increasing the size of the work. The student of public health will here find the essentials of laboratory work in the analysis of water, air, soil, and foods, conveniently arranged for practical work.

The Prevention of Epidemics. By FRANCIS VACHER. Pp. 16. London: W. H. & L. Collingridge.—This address, delivered at the annual meeting of the Incorporated Society of Medical Officers of Health in 1895, is interesting in that it contains conclusions, the outcome of several years' practical experience, upon many points of recurring interest in public health work.

History of the Cholera Controversy. By Sir GEORGE JOHNSON, M.D., F.R.S. Pp. xi., 78. London: J. & A. Churchill. 1896.—One of the latest of the many works of this vigorous and much lamented writer, this small volume puts forward a strong plea for the "eliminative and antiseptic" treatment of cholera, based upon an extensive experience dating from the epidemic of 1849. The last chapter contains practical directions for the treatment of cholera and of diarrhœa at epidemic periods.

The Prophylactic Clothing of the Body. By W. F. CLEVELAND, M.D. London: H. K. Lewis. 1896.—In this small pamphlet of fifteen pages the author devotes the first nine to a statement of the method of heat production and loss in the animal body and to quotations from Michael Foster and Herbert Spencer on this subject and on the effects of excessively cold climates in weeding out the feebler inhabitants. For two pages and a half the advisability of using flannel under-garments, hot-water bottles, socks at night, &c., is considered. The rest is taken up almost entirely with the causes of "chills" and how they act on the body: "A chill might predispose the system to imbibe the puerperal poison when it was, so to say, *afloat*, in the same way that diarrhœa, if neglected, predisposed the system to take the cholera bacillus, when it was lurking in the neighbourhood." This quotation may serve as a sample of the time-honoured but incorrect ideas which occasionally crop up in this address, although it is only fair to say that most of the precepts laid down in the few pages which deal with clothing are as sound as they are antiquated.

A Manual of Medical Jurisprudence and Toxicology. By HENRY C. CHAPMAN, M.D. Second Edition. Pp. 254. Philadelphia: W. B. Saunders. 1896.—This work remains essentially the same as the first edition, which we reviewed in 1893; but we note that there is an improvement in the type and in the paper. There are fifteen pages more of letter-press, as well as some additional woodcuts in the toxicological section.

The Johns Hopkins Hospital Reports. Volume IV. No. 9. Report in Pathology, IV. Baltimore: The Johns Hopkins Press. 1895.—Here Dr. Whitridge Williams reports a case of deciduoma malignum with the care and thoroughness that characterise the various branches of work connected with the Johns Hopkins Hospital. Dr. Williams considers the evidence afforded by microscopical examination throws doubts upon the view that these malignant growths commence in the decidua. The most striking feature of his case was the presence of finger-like processes of protoplasm containing several nuclei. These he calls masses of syncytium, the name given to the superficial layer of the chorionic villi. In other recorded cases of deciduoma malignum similar syncytial masses have been described. Dr. Williams considers that there can be no doubt that these

masses are derived from the chorionic villi. If such a view be accepted, and it be also allowed that the opinion of the majority of authorities is correct, namely, that the cellular covering of the chorionic villi is maternal in origin, then the malignant growths known as deciduoma malignum are in reality uterine and not decidual.

The Middlesex Hospital. Reports of the Medical, Surgical, and Pathological Registrars for 1894. London: H. K. Lewis. 1895.—This vast and accurately detailed collection of facts forms a volume of 406 pages, and speaks well for the energies of registrars and pathologist. It comprises statistical tables of all the injuries and diseases for the year, with summaries of the notes on more important cases. It fully meets the possible exactions of a subscribing public, but fails to give the medical reader the full advantages of suitably selected arrangement, comment, and description. It contains an analysis of no less than seventy-three cases of enteric fever treated during the year with a mortality of 6.6 per cent. Sixty-five of the cases gave Ehrlich's reaction, and fifty-seven of them were treated by cold bathing or sponging. It is interesting to note that all the three medical patients with aneurysm had served in the army. It gives an abstract and notes of twenty-six operations on the kidney performed during the year, and of three cases of hydatid of liver or omentum. A case of perforating gastric ulcer was successfully operated on four hours after the perforation occurred. Here there was sudden pain at the onset; but the patient was brought to hospital without at first showing any collapse, disappearance of the liver dulness being the only early sign. There was a unique case of actinomycosis of the skin, very typical in its appearances. This is recorded in vol. lxxviii. of the *Transactions of the Royal Medical and Chirurgical Society of London*. Notes are also given, amongst others, of cases of typhus fever, hydatid of pleura, acute myelitis, Landry's paralysis, and splenectomy for simple hypertrophy. Although the reports are admirable in their completeness, they might be rendered much more valuable medically by suppression of unimportant details, and by the collective elaboration of important cases followed by the deduction of general principles.

Saint Bartholomew's Hospital Reports. Vol. XXXI. London: Smith, Elder, & Co. 1895.—St. Bartholomew's Hospital Reports will always be interesting, not only to past and present Bartholomew's men, but to the profession at large. Those who do not read the reports of our large hospitals often miss some of the most important papers published during the year. To Bartholomew's men—and indeed to the profession generally—the volume has a sad interest. It opens with an "In Memoriam" account of the life and character of Sir William Savory, a man familiar to all old students of the Hospital. Mr. Howard Marsh has shown himself to be an excellent biographer.

All sides of Sir William Savory's character and work are graphically represented, and those who knew him only in the wards and operating theatre, or perhaps only in the examination room at the College of Surgeons, will learn much to interest and please them. In the same year as the celebrated surgeon of St. Bartholomew's Hospital, the steward, Mark Morris, passed away: his anonymous biographer writes: "There is probably not a Bartholomew's man now living who did not know the Steward, and to whom the name will not recall one of the most familiar faces in the Hospital." To those who have held resident posts at the Hospital—who knew him well and appreciated him very highly—the short account of his life and long connection with the Hospital written by "the friendly hand of one whose memory goes back to the days when even Mark Morris was not yet an officer of the Hospital" cannot fail to be interesting. It would be impossible to refer to individual papers as of particular interest, so much depends on the interests of the reader. Dr. Hepburn's paper on "Mal des Montagnes; or, so-called Mountain-Sickness," is a very thorough and valuable contribution to our knowledge of this little-known and less understood disease. The psychologist will find ample material for study in Dr. Claye Shaw's paper "On Cell-Memory." Surgeons will be interested in a joint paper by Mr. Butlin and Mr. Colby "On Sarcoma of the Bones of the Thigh and Leg." "The Prognosis of Tetanus," by Dr. Worthington is of particular value in connection with the antitoxin treatment. Diphtheria is the subject of two communications—one from Dr. Herringham on the treatment by antitoxin at St. Bartholomew's Hospital, and the other a bacteriological investigation in this disease, by Dr. Kanthack and Mr. White. "A Case of Actinomycosis of the Thoracic Wall" is of great interest both to the physician and surgeon. It is reported by Sir Dyce Duckworth. Anæsthetists will be glad to find a paper "On the Mechanical Factor in Chloroform-Anæsthesia," by Mr. Gill, the Senior Anæsthetist to the Hospital.

St. Thomas's Hospital Reports. New Series. Vol. XXIII. London: J. & A. Churchill. 1896.—The volume begins with a warm tribute to the memory of the late Dr. Bristowe. Of the many eminent men on the roll of physicians of St. Thomas's Hospital, he was one of the ablest and most accomplished. It is hardly necessary to say here, for the number and value of his contributions to medicine and pathology sufficiently attest it, that Dr. Bristowe was unsurpassed in the extent of his professional knowledge. Less generally known perhaps, as lying apart from his professional reputation, were his high artistic and literary gifts. As a clinical teacher he was amongst the very first, and many generations of students look back with gratitude to the training in medicine which they owe to him. He inspired them moreover with that deep respect and affection which were only due to his nobleness of character and unvarying kindness of heart.

An excellent portrait of Dr. Bristowe forms the frontispiece to the volume. Dr. Payne has an interesting paper on some anatomical and practical observations of James Molins, a surgical pupil and apprentice at the hospital from 1674—1677. We notice amongst other papers "A Note on the Physiology of the Spinal Cord," by Professor Sherrington, an account of two interesting cases of severe injury to the head by Mr. W. M. Battle, and a well-marked example of intra-uterine rickets by Mr. Makins. Dr. Theodore Acland and Mr. Chas. Ballance contribute a very important and valuable monograph on the subject of cerebellar abscess secondary to ear disease. This contains the report of a case successfully operated on, and of great interest from the point of view of the symptoms present. They describe the character and mode of causation of the symptoms in cases of cerebellar abscess, give abstracts of 77 cases collected from the literature of the subject, and statistics of chief symptoms in 100 cases together with an extensive bibliography, and a full discussion of the differential diagnosis. The paper is very well written, and deserves careful study. There are the usual reports of the work carried on in the medical, surgical, and special departments of the hospital, with short abstracts of cases of special importance and interest. These show the amount of good work that has been done at the hospital during the year.

Recherches cliniques et thérapeutiques sur l'Épilepsie, l'Hystérie et l'Idiotie. Volume XV. Paris: Félix Alcan. 1895.—This is the annual report of the department of the Bicêtre Hospital devoted to idiots, under the charge of M. Bourneville, and gives the usual statistics. In addition, the second part contains a full account of the methods of observation and examination which are carried out. This is published in refutation of an attack made upon M. Bourneville with respect to his methods of physical examination. The third part gives a full report, with necropsy, of a case of congenital idiocy with paraplegia, illustrated by three beautiful plates of the morbid changes in the brain, and of a case of myxœdematous idiocy (sporadic cretinism).

Transactions of the Association of American Physicians. Vol. X. Philadelphia: Printed for the Association. 1895.—This working society of one hundred members, all of whom have done good work, having no regard for medical politics or for medical ethics, here issues its tenth volume of noteworthy contributions to scientific and practical medicine, containing very much of the cream of American medical literature. Dr. Jacobi's record-breaking case of hyperthermy, in which, in spite of scepticism and every possible precaution, thirty-four observations in the course of five days gave an average temperature of 124° or 125° (the highest being 148°, the lowest 109.8°), is given in carefully-described detail. Dr. Whittaker, in his paper on the etiology of idiopathic hypertrophy of the heart, gives syphilis its correct

position as ranking next to alcohol in the production of cicatricial myocarditis.

Transactions of the American Surgical Association. Vol. XIII. Philadelphia: William J. Dornan. 1895.—This volume is full of interest and will be welcomed by all surgeons on this side of the Atlantic. Professor William White, of Philadelphia, contributes a long and important article on "The Results of Double Castration in Hypertrophy of the Prostate," in which he brings forward abundant additional proofs of the safety and efficiency of this method of treating the disease. He replies to various objections which have been made to his operation, and tabulates 111 cases with only 20 deaths. Important papers are contributed on operative treatment of cancer in various localities, including "The Female Generative Organs," by Dr. John Homans; "The Lip, Tongue, Floor of Mouth, and Pharynx," by Dr. P. S. Conner; "Treatment of Cancer of the Breast," by Dr. J. S. Wight; "Operative Treatment of Cancer of the Male Genitals," by Dr. Hunter McGuire; and "The Modern Operative Treatment of Rectal Cancer," by Dr. Arpad G. Gerster. All of these papers are accompanied by a full report of the discussions which followed. The editing of this volume is not carried out in the customary careful manner, for we notice many errors in the spelling of proper names, such as Fauls for Faulds (p. 130), Monroe Smith for Munro Smith (p. 287), MacCormick for MacCormac (p. 285), Mounsell for Maunsell (p. 84), Lowrie for Lawrie (p. 179), and Symond for Symonds (p. 185).

Transactions of the College of Physicians of Philadelphia. Third Series. Vol. XVII. Printed for the College. 1895.—With the 171 pages of papers on a variety of subjects is bound up the Jenks Prize Essay on "Infantile Mortality during Child-birth and its Prevention," by Dr. A. Brothers. The author observes that "since the recent results of the Cesarian section, and of the revived symphyseotomy, have assumed so favorable an aspect, we are on the threshold of a new era in the development of the obstetric art," and as a result of ten years' active midwifery practice, combined with a large experience in the fields of pediatrics and everyday gynecology, "he feels that his points of observation have been sufficiently comprehensive to allow him to carefully weigh the subject in both hands." He has endeavoured to point out the advances made in recent years in the interests of the unborn child previous to labour, during the critical hours of actual labour, and in the earliest period of life succeeding labour.

Transactions of the Colorado State Medical Society. Denver: A. J. Ludditt. 1895.—This volume of 551 pages contains by-laws, list of members, and a series of photographs of past presidents, the originals of which must have been quite ornamental to the State. Dr. Charles S. Manly, in his paper on "The Importance of Rational Methods in the Diagnosis of Phthisis with special Reference to pre-Tuberculosis," lays down

the axiom that all wasting diseases should be suspected to have a tubercular origin and tendency. Dr. Charles Denison gives a report on the results of treatment by antiphthisin (Klebs).

Transactions of the Medical Society of Virginia. Richmond: J. W. Fergusson & Son. 1895.—A noteworthy speciality of this volume is that all the Fellows of the Medical Society of Virginia are requested to supply the Secretary with a correct biographical register in order that the Necrological Committee may be in readiness to provide a suitable memoir of their departed friends. This method of getting each member to write an autobiography is one which, if generally adopted, would save much trouble when a biographical notice is required.

Transactions of the New Hampshire Medical Society. Concord: The Republican Press Association. 1895.—The 186 pages of this record contain the usual presidential address, with dissertations on "The Physical Basis of Crime," "Cancer," "Germ Diseases," and many other topics, treated in an original and interesting manner. The volume should have an index.

Transactions of the American Ophthalmological Society. Vol. VII., Part II. Hartford: Published by the Society. 1896.—This volume contains thirty-five communications, some of which are very valuable contributions to ophthalmology. Dr. Charles Stedman Bull in a most careful report of 612 cases of squint for which he had operated, found that 94 per cent. had some form of hypermetropia. His paper shows the inadvisability of simultaneous tenotomy of both internal recti in all but a few exceptional cases. Divergence followed in 6 cases out of 20 so dealt with. Neurologists will read with interest an account of a case of recurrent oculo-motor palsy associated with neuralgia, which is interesting in connection with the series of similar cases recently collected by Dr. Ormerod and Mr. Holmes Spicer. Dr. Risley relates a case of what Cohen has described as vaso-motor ataxia with monocular exophthalmos. The difficult subject of the astigmatic effect of spherical lenses when placed obliquely to the axis of vision is admirably treated by Dr. John Green in a paper going fully into the optics of the conditions involved. It explains the well-known but little understood advantages that patients often find from tilting their spectacles into "incorrect" positions. In the statistics of 4,000 cases of ocular headaches, for which Dr. Mittendorf had ordered glasses, we are surprised to see that no less than forty per cent. had less than 0.5 D simple hypermetropic astigmatism. But what is equally surprising is that only 6½ per cent. had compound hypermetropic astigmatism. In estimating the refraction no mention is made of any mydriatic being used with a view to detecting latent hypermetropia, or of any objective test being used to check the results. His statistics, therefore, are of but little value, and we are not astonished to find that of late he has frequently ordered 0.125 D cylinder (25 feet focal length roughly),

with which he says he has seen satisfactory results. Dr. W. F. Norris, in a paper on The Terminations of the Rods and Cones in the Retina, describes them as sometimes ending in loops, but the six micro-photographs which accompany his paper do not at all support his contention. Dr. Albert Heyl relates and illustrates two interesting and rare ophthalmoscopic cases. One is a spontaneous rupture of the choroid running radially through the macular region, which he attributes (on what grounds is not stated) to sudden spasmodic contraction of the external rectus muscle. The other is a case of what Dr. Heyl takes to be albuminoid deposit in the discs and retinæ of both eyes, but not materially affecting vision. Dr. G. E. de Schweinitz reports another case of traumatic exophthalmos coming on within four days of an injury to the head, but without any evidence of fracture of the orbit. In a discussion on the needling of opaque capsules, it appears that the well-known and useful method with two needles, proposed by Sir William Bowman more than forty years ago, is rarely resorted to in America. Dr. Sutphen advocates the use of salicylate of soda in glaucoma, and, from the accounts he gives of six cases, it certainly seems worth trial where for any reason operation is undesirable. Dr. Noyes relates five cases of severe hemorrhage after extraction of cataract. He thinks this "tragic" occurrence, as he aptly calls it, is so likely to happen after operation on myopic eyes in old people that he would in many cases entirely abandon the idea of operating.

Transactions of the Medical Society of London. Vol. XVIII. London: Harrison and Sons. 1895.—The papers here reproduced have, for the most part, appeared in full in the weekly journals, and are familiar to the most superficial medical reader. The Lettsomian lectures of Dr. Frederick T. Roberts require careful reading, and remind one of the system adopted in the author's well-known text-book. The paper on "Cycling and Heart Disease" by Sir Benjamin Ward Richardson is of especial interest just now, when so many ladies are leaving their horses to be exercised by the groom, whilst they themselves are indulging in more health-giving exercise on cycles: the last word on this subject is worthy of being quoted: "Discarding overstrain, he saw no reason to doubt that cycling was very beneficial to women, especially those with a tendency to anæmia." If any direct or obvious harm is likely to arise in healthy women, there will soon be ample opportunity of obtaining much evidence on the subject; but, on the other hand, it appears reasonable to suggest that in cases of weak circulation both in men and women the use of the cycle may well be adopted instead of the elaborate and tedious methods associated with the name of the brothers Schott at Nauheim.

Transactions of the Clinical Society of London. Vol. XXVIII. London: Longmans, Green, and Co. 1895.—As usual this volume of Transactions contains a large number of valuable

papers and reports of cases. Where all are good it would be invidious to single out particular papers, and it is sufficient to say that the present volume fully maintains the high standard of its predecessors.

Burdett's Hospitals and Charities. 1896. By Henry C. Burdett. London: The Scientific Press (Limited). — Mr. Burdett's "annual," if a little late, is none the less welcome. It is a book which is indispensable to anyone interested or engaged in charitable work. A new feature in this year's publication is a table giving the income and expenditure of some of the great charities in the United Kingdom. Mr. Burdett does not despair of making in the future a complete return, but, incomplete as the list is, the labour is well repaid in the value of the table. Chapter II. we specially recommend as worthy of careful study. Its title, "The Misuse of Hospitals," shows that it treats of a subject which is occupying the minds of medical men very largely at the present time. We do not agree with all Mr. Burdett says, more particularly as to the reduction of cost per bed by payment of the staff (pp. 98—100), which would put "everything connected with the hospitals . . . upon a business basis." It certainly does not seem probable in the present impoverished state of the medical charities that such a Utopian plan will be carried out. Among other things, the poor Radcliffe Infirmary comes in for its usual castigation, and "Dr." Barnardo's accounts are published *in extenso*, to show "how *not* to do it."

Year-Book of the Scientific and Learned Societies of Great Britain and Ireland. London: Charles Griffin and Company, Limited. 1896.—All who know this work agree that it is a most useful book of reference; it is well printed and appears to be generally correct, but the report of our society shows that no "proof" had been submitted to the Secretary. The publication would be greatly improved if the index included the titles of the papers and the names of their authors.

A Short History of Bookbinding. Pp. 28. London: Printed at the Chiswick Press. 1895.—This is one of the most unobtrusive and pleasing forms of advertisement we have seen. The "short history," condensed from Mr. Zaehnsdorf's larger work on the subject, is useful and interesting, and, together with a glossary and a dainty frontispiece, makes the booklet very acceptable. The Zaehnsdorf work is too well known to need any commendation from us.

Complete Catalogue of the Products of the Laboratories of Parke, Davis & Co., Detroit. British Edition. 1896.—This forms a compact and convenient volume of 228 pages, containing much valuable information on drugs and foods for invalids. Many of these deserve a more extended use than they have yet received, but all good things have to earn a reputation by slow and steady progress.

Notes on Preparations for the Sick.

Glycerole Chloride of Iron; Dialysed Iron; Wine of Tar; Compressed Pills (or Powders).—JOHN WYETH & BROTHER, London. The **Glycerole Chloride of Iron** is non-alcoholic. Each fluid ounce represents sixty drops of tincture of perchloride of iron. The iron exists in the form of a ferric salt. **Dialysed Iron** is a neutral solution of peroxide of iron in a colloid form. This well-known preparation needs no commendation: the colloidal hydrate of iron forms an inodorous liquid of a deep-red colour, but with little styptic taste. These preparations do not give rise to gastric disturbance and do not blacken the teeth.

The **Wine of Tar** is a preparation from an old formula supplied by Dr. Samuel Jackson some thirty years ago; it has long been in use in cases of bronchial and gastric catarrh. We question if the quantity of tar is sufficient for modern requirements in the treatment of phthisis, but in many catarrhal conditions of the various mucous membranes it has a long-established reputation.

The **Compressed Pills** have the ordinary tabloid shape, and some are sugar-coated. They appear to be exceedingly well made, and a long list is provided for almost every possible requirement.

Ferropyrin.—B. KÜHN, London.—This, for which Mr. Kühn is the agent, is a dark-red crystalline powder, readily soluble in cold water; it is a compound of one molecule of ferric chloride with three molecules of antipyrin. It has given good results in chlorotic and anæmic conditions, especially when accompanied by headaches, migraine, gastralgias, and similar neuralgias. The success of this combination of the hæmatinic with the analgesic has fulfilled all expectations. Dr. Cubasch, after four years' trial, speaks very highly of its utility in doses of three to four grains three or four times daily.

Taka-Diastase.—PARKE, DAVIS & Co., London.—Persons who object to the taste and consistence of malt extracts of the ordinary kind may be glad to have the powdered diastase as prepared for them at Detroit, Mich. It is capable of converting over one hundred times its weight of starch into sugar,

and it must therefore be a valuable drug in the treatment of amylaceous dyspepsia. Its name arises from the fact that it is prepared from Taka Koji, which is wheat bran in which a fungus, the Eurotium oryzæ, is grown: the diastase is washed from the bran, and is obtained in a state of considerable purity and concentration.

Malto-Peptone Malt Extract Jelly; Malto-Peptone Malt Extract Jelly, with Cod-Liver Oil.—THE MALTO-PEPTONE Co., Needham Market, Suffolk.—The basis of these preparations is what is called a malto-peptone malt extract, which "(1) is prepared from fine diastasic malt specially made for the purpose; (2) contains the whole value of malted barley, not only a high percentage of its diastase . . . but also the soluble nitrogenous matter and natural salts contained in the malt rootlets, which is extracted from them by a special patented process and designated Malto-Peptone. (3) The addition of Malto-Peptone has a two-fold valuable effect: (*a*) it greatly adds to the nutritive principles of malt extract, the nitrogenous constituents being in a soluble and quickly assimilable condition, and is consequently of much benefit in cases where ordinary nutriment is difficult of retention, or even dangerous to take; (*b*) it wonderfully improves the flavour of the malt extract, which has none of the nauseating sickly taste common to most of these preparations, and which frequently is so highly objectionable to invalids, and to those persons whose ailments necessitate a protracted course of treatment with it. (4) It will keep good in any climate and for any reasonable length of time."

The **Jelly** can easily be cut out of the glass jar with a spoon, and has none of the disadvantages of the ordinary sticky syrup. The **Cod-Liver Oil Preparation** should be taken cut up into pieces the size of a large bean, which can be easily swallowed without leaving the flavour of the oil on the palate.

Vin Regno; "Vivo."—LIEBIG'S WINE Co., Liverpool.—These excellent food products are well worthy of a more extended reputation. The **Vin Regno** is made by adding the juice of five pounds of beef to one quart of port wine. Extract of malt and quinine are also added, or the preparation may be had without quinine. The fluid is clear and is palatable: it has a specific gravity of about 1060, but it does not contain albumen. The "**Vivo**" is a fluid of high gravity, about 1250, containing much albumen: it has a good aroma and flavour. The granular sediment does not contain any blood-corpuscles or muscle-fibres. A dessert-spoonful in boiling water makes a cup of excellent beef-tea.

The Canadian Extract of Beef prepared by this Company consists of the juice of forty pounds of beef concentrated to one pound of the extract.

L.C.C. Meat Juice.—THE LIQUOR CARNIS COMPANY, Aston Clinton, Bucks.—This very dark-coloured, opaque, viscid fluid is described by its vendors as a "liquid asset," whilst cooked foods, essences, and extracts are, as it were, "bills to be discounted." It certainly is a very concentrated fluid, as when diluted to four times its bulk its specific gravity is as high as 1060. It precipitates freely with picric acid, the albuminometer tube showing a percentage of .4 per cent. in the diluted fluid, making the very high amount of 1.6 per cent. of albumen in the undiluted juice. It contains a quantity of granular sediment with fragments of cells and a few crystals, but we did not identify any fragments of striped muscle or unbroken red blood-cells. The spectroscope does not show the ordinary hæmoglobin bands. The makers say that the "juice consists of the uncooked juices of British beef, highly concentrated, obtained by hydraulic pressure, excluding the indigestible fibre, and retaining only the nutritious portions of the meat in a form that admits of direct absorption." Our examination of the fluid tends to support the above statement: it is the most concentrated fluid we have met with. It has a beefy aroma and flavour, and it may be taken diluted as a cold drink, or to supply the deficient nourishing qualities of a cup of ordinary home-made hot beef-tea, the flavour of which is thereby improved.

Gaskin's Cocoa; "Viking" Condensed Unsweetened Milk.—ANDERSON & COLTMAN, London.—The chemical composition of this **Cocoa** is shewn by the following analysis (Granville H. Sharpe, F.C.S.):

	Per cent.		Per cent.
Albuminous Matters	23.75	Water	4.45
Cocoa Butter	31.26	Ash	4.43
Theobromin	1.05	Other Nutritive Matters ...	35.06

It is manufactured in British Guiana; is pure, retaining the flavour and aroma of the cocoa bean; is very nourishing, as shewn by its composition; is easily digested; and one invalid, whom we know and who likes few things, says that this cocoa is very nice.

The **Milk**, from cows grazing in the Norwegian Highlands, unskimmed and condensed without the addition of sugar or any other substance, looks like cream, and when mixed with two or three parts of water it not only closely resembles but also has the chemical composition of fresh milk. Being sterilised, it will keep for any length of time, and may be kept in readiness so as

to be at any time available for children and invalids who require sterilised milk of excellent quality. It differs from the ordinary brands in that it does not contain any admixture of cane sugar or any other preservative. For cooking and all other purposes it may be looked upon practically as concentrated sterilised milk.

"Narissa."—G. & G. STERN, London.—The composition of this, which is introduced as a new nourishing food, is shown by the published analysis:

	Per cent.		Per cent.
Moisture	4.94	Starch	20.41
Albumen	21.43	Woody Fibre	0.56
Fat	8.22	Mineral Matter (Phosphates and Phosphoric Acid) ...	5.02
Dextrin	27.16		
Milk Sugar and Cane	12.26		

A powder of this composition, containing an admixture of albuminous, saccharine, and fatty elements, and easy of digestion, is deservedly spoken of as a model food. It can be taken as a beverage instead of tea or coffee, or as an excellent improvement on oatmeal porridge. Its nutritive value must be superior to that of the ordinary meat essences and juices, and it is by no means unpalatable.

Pitkeathly; Pitkeathly cum Lithia.—REID & DONALD, Perth.—There appear to be as many princes amongst table waters as in the German Empire. This particular "prince," as its proprietors describe it, has many good things said of it, and no one ventures to say anything against it. The water contains the chlorides of sodium, magnesium, and calcium in solution with carbonate of soda. The Lithia aerated water has given much satisfaction in the treatment of gouty affections: each half-bottle contains five grains of the carbonate of lithia.

Australian Brandy.—JOSHUA BROTHERS, London.—It is only natural that the steady development of the Victorian vineyards should lead to the introduction of an Australian genuine grape brandy at a time when the shipments from the Cognac district have so much fallen off. The sample forwarded to us appears to be pure, and certainly its flavour is excellent. Its quality, its price, and the innate love which English people have for things which are not foreign should enable this fluid to compete successfully with Scotch and Irish whisky.

Anæsthetic Tabloids.—BURROUGHS, WELLCOME & Co., London.—These tabloids are supplied of three degrees of strength, designated "strong," "normal," and "weak." They

contain a little morphia and sodium chloride in addition to cocaine, and are intended for hypodermic use in the manner recommended by Dr. C. L. Schleich, of Berlin. We have tried them for removal of a piece of glass from the hand and found them most effectual.

Adeps Lanæ, N.W.K.—THOMAS CHRISTY & Co., London.—The special features which distinguish this from other preparations of wool-fat are said to be its absolute purity, soft consistency, non-stickiness, and its low melting point.

The Library of the Bristol Medico-Chirurgical Society.

The following donations have been received since the publication of the list in June:

August 31st, 1896.

British Medical Association (1)	1 volume.
J. Michell Clarke, M.D. (2)	1 ,,
George M. Gould, M.D. (3)	82 volumes.
L. M. Griffiths (4)	8 ,,
L'Institut international de Bibliographie (5) ...	1 volume.
C. Moore Jessop (6)	24 volumes.
R. Shingleton Smith, M.D. (7)	1 volume.
P. Watson Williams, M.D. (8)	4 volumes.

Unbound periodicals have been received from Dr. P. Watson Williams.

TWENTY-FIRST LIST OF BOOKS.

The titles of books mentioned in previous lists are not repeated.

The figures in brackets refer to the figures after the names of the donors, and show by whom the volumes were presented. The books to which no such figures are attached have either been bought from the Library Fund or received through the *Journal*.

Allis, O. H. ... *Dislocations of the Hip* 1896
Bahadurji, K. N. *Medical Administration of India* 1896
Bannatyne, G. A. *Rheumatoid Arthritis* 1896
Bergey, J. S. Billings, S. W. Mitchell, and D. H. *The Composition of Expired Air and its Effects upon Animal Life*... 1895
Bibliographie scientifique, Organisation internationale de la ... ... (5) 1896
Billings, S. W. Mitchell and D. H. Bergey, J. S. *The Composition of Expired Air and its Effects upon Animal Life*... 1895
Broca et P. Maubrac, A. *Traité de Chirurgie cérébrale* 1896
Brockbank, E. M. *On Gall-stones* 1896
Cheyne, W. W. ... *Operations for Cancer* 1896
Clarkson, A. ... *A Text-Book of Histology* 1896
Cooke, T. ... ... *A Plea for Practical Work in Anatomy* ... ... (4) 1893
Corfield, W. H.... *Disease and Defective House Sanitation* 1896
Dalton, N.... ... *Aids to Medicine*, Parts I.—IV. ... ... 2 vols. [1896]
Delanglade, É. ... *De la Luxation congénitale du Fémur* 1896
Doyne, R W. ... *Diseases of the Eye* 1896
Dunogier, S. ... *De la Prothèse appliquée au Traitement des Empyèmes de l'Antre d'Highmore* 1896
Ferguson, [R. S.] *Official Guide to Carlisle* ... ... (7) 1896
Fothergill, W. E. *Manual of Midwifery* 1896
Freyer, P. J. ... *Modern Treatment of Stone* ... ... 2nd Ed. 1896
Fripp, H. ... ... *Retrospect of the Transactions of the Bristol Medico-Chirurgical Society* ... ... (4) [N.D.]
,, ... *The Doctrine of Contagium Vivum, in its Relation to Parasitic Disease* ... ... (4) 1878
Gemmell, G. H... *Chemical Notes and Equations* ... ... [1896]
Goodall and J. W. Washbourn, E. W. *A Manual of Infectious Diseases* 1896
Gould, G. M. ... *Borderland Studies* ... ... (3) 1896
Hall, J. ... ... *Select Observations on English Bodies of Eminent Persons in Desperate Diseases* (Tr. by J. Cook). 3rd Ed. 1683
Hedley, W. S. ... *The Hydro-Electric Methods in Medicine* ... 2nd Ed. 1896
Hewer, Mrs. L... *Our Baby* ... ... 4th Ed. 1896
Hyde, S. ... ... *Rheumatoid Arthritis* 1896
Isle of Man, The. Official Guide ... ... [N.D.]
[*Jenner, Eduardo*] *Boletin del Consejo superior de Salubridad. Numero especial* 1896
Jessop, C. M. ... *Asiatic Cholera* ... ... (6) 1883
Johnson, Sir G... *The Pathology of the Contracted Granular Kidney* ... 1896
Keane, A. H. ... *Ethnology* 1896
Lee, R. ... ... *On Ovarian and Uterine Diseases* ... ... (6) 1853
Lusk, W. T. ... *The Science and Art of Midwifery* ... ... (6) 1884
Macan, A. V. ... *The Rational Treatment of Anterior and Posterior Displacements of the Uterus* ... ... (4) 1885
Maclagan, T. J... *Rheumatism* ... ... 2nd Ed. 1896
Maubrac, A. Broca et P. *Traité de Chirurgie cérébrale* 1896
Medical, The Musings of a. No. I. ... ... (8) [N.D.]
Mitchell and D. H Bergey, J. S. Billings, S. W. *The Composition of Expired Air and its Effects upon Animal Life* ... 1895
Nall, S. ... ... *Aids to Obstetrics* ... ... 5th Ed. [1896]

Opium in India, The Consumption of 1895
Paget, S. ... ... *The Surgery of the Chest* 1896
Pritchard, U. ... *Diseases of the Ear* ... ... 3rd Ed. 1896
Ramm, F. ... ... *Kastration ved Prostatahypertrofi* 1896
Robertson, W. G. A. *Clinical Diagnosis* 1896
Sandwith, F. M. *Cholera in Egypt* ... ... (8) 1892
Smith, R. A. ... *Air and Rain* ... ... (6) 1872
Smith, W. R. ... *Angio-Neurosis* ... ... [N.D.]
Southport—A Modern City of Health ... ... [N.D.]
Squire, B. ... ... *On Lupus Vulgaris* ... ... (4) 1888
Sturges, O. ... *Pneumonia* ... ... (6) 1876
Swain, P. ... ... *Surgical Emergencies* ... ... 5th Ed. 1896
Tiebel, H. C. ... *Official Handbook of Spas, Watering Places, and Health Resorts* ... ... [1896]
Washbourn, E. W. Goodall and J. W. *A Manual of Infectious Diseases* 1896
Weber, H. and F. P. *The Spas and Mineral Waters of Europe* 1896
Wright, C. D. ... *Report on the Factory System of the United States* (8) 1884
Yeo, I. B. ... ... *Food in Health and Disease* ... ... [2nd Ed.] 1896
Ziemssen, H. v. ... *Klinische Vorträge* ... ... (8) 1887–93

TRANSACTIONS, REPORTS, JOURNALS, &c.

Advertisers' Guardian, The 1891
American Gynæcological and Obstetrical Journal, The ... Vol. VIII. 1896
American Journal of Obstetrics, The ... ... Vol. XXXIII. 1896
American Journal of the Medical Sciences, The (3) Vols. VI.—X., 1830-32, XXI.—XXVI., 1837-40, N.S. V.—XII., 1843—46, XV.—XXVIII., 1848-54, XXXI.—LXXVIII., 1856-79; CXI. 1896
Année psychologique, L' ... ... (2) 1895
Archives de Neurologie ... ... 2e Sér. Tome I. 1896
Asclepiad, The ... ... (4) Vol. V. 1888
Australasian Medical Gazette, The ... ... Vol. XIV. 1895
Birmingham Medical Review, The ... ... Vol. XXXIX. 1896
Boston Medical and Surgical Journal, The ... ... Vol. CXXXIV. 1896
Bristol Health Report ... ... (4) 1891; 1896
British Gynæcological Journal, The ... ... (1) Vols. I., 1886; XI. 1895
British Medical Journal, The ... ... Vol. I. for 1896
Buffalo Medical Journal ... ... Vol. XXXV. 1896
China Medical Missionary Journal, The ... ... Vols. VIII., IX. 1894-95
" " " Indices to Vols. I.—IX., 1887-95 1896
Cincinnati Lancet-Clinic, The ... ... Vol. LXXV. 1896
Dictionary of Bathing Places, Bradshaw's 1896
Dictionary of the World's Press, Sell's 1892
Dublin Journal of Medical Science, The ... ... Vol. CI. 1896
Edinburgh Medical Journal ... ... Vol. XLI. 1896
Grant College Medical Society, Bombay, Transactions of the 1896
Hospital and Charities Annual, Burdett's 1896

Hospitals—		
Cincinnati Hospital, Thirty-fifth Annual Report of the		1896
Edinburgh Hospital Reports	Vol. IV.	1896
Journal of Laryngology, Rhinology, and Otology, The	Vol. X.	1896
Journal of the American Medical Association, The	Vol XXVI.	1896
Lancet, The	Vol. I. for	1896
Medical and Surgical Reporter, The	Vol. LXXIV.	1896
Medical Chronicle, The	N.S. Vol. IV.	1896
Medical Press and Circular, The	[Vol. CXII.]	1896
Medical Record	Vol. XLIX.	1896
Medical Register, The		1883
Montreal Medical Journal, The	[Vol. XXIV.]	1896
Newspaper Press Directory		1889
New York Medical Journal, The	Vol. LXIII.	1896
New York, Transactions of the Medical Society of the State of		1896
Pediatrics	Vol. I.	1896
Progrès médical, Le	3e Sér. Tome III.	1896
Retrospect of Medicine, Braithwaite's	Vol. CXIII.	1896
Revue obstétricale et gynécologique		1896
St. Louis Medical and Surgical Journal, The	Vol. LXX.	1896
Sanitary Record, The	Vol. XVII.	1896

Local Medical Notes.

BRISTOL.

HEALTH REPORT.—The annual Report of the Medical Officer of Health for 1895 has been recently distributed, and contains much valuable and interesting information on the health of the city and the means which are taken to keep the condition of the health-rate up to its present highly satisfactory state.

Part I. is the "Report of the General Sanitary Condition of the Urban Sanitary District of Bristol." We are glad to find that the *old wells* which still exist are gradually being closed. All of those examined (43) during the year were found to be more or less polluted—a fact we can hardly be surprised at when we remember that the soil has been lived over for centuries. In one case the users had attempted to purify the water by a charcoal filter, with the result of making it fouler than before.

As many of our readers know, the loan (£16,100) for the completion of the *Smallpox Hospital* upon the Novers Hill site (13 acres) has received the sanction of the Local Government Board. This will add 20 beds to the already existing 50, as well as administration, isolation and laundry blocks, and a disinfecting station.

The inquiry into the Ham Green site (20½ acres) was progressing at the time the report was written, the proposed loan being £27,000. The

permission has since been granted and the work was begun at once. This will add 76 beds to the present accommodation.

The calculated population of Bristol is now 228,139. During 1895 there was an increase in the *birth-rate*, which had previously been falling off—6,622 births, 29.02 birth-rate, compared with 6,393 births, 28.81 birth-rate in 1894; while the *marriage-rate* has fallen off, 10.8 against 11.5 in 1894. *Illegitimate births*, however, have risen to 222 from 189. The number of *deaths* has risen to 4,108 from 3,888, or 18.08 as compared with 17.16—the lowest ever recorded—in 1894. *Infant mortality* has fallen from 948 to 935; the rate is therefore lower—141.19 against 148.31 in 1894. Bristol as usual compared favourably with many big towns. According to the averages, which at best are most deceptive things, 302 persons now living should be dead. We congratulate these individuals, whoever they may be. This net gain is lower than 1894, when it was 550.

As is usually the case, the latest available returns of *vaccination* are those of the previous year (1894), and, as may be easily explained, a considerable falling off is observed, the percentage successfully vaccinated being 71.49 as compared with 76.91. The figures are for the Bristol Union. For the Barton Regis Union the numbers are still lower, 68.6 against 72.0 in 1893.

Owing to the hot summer and autumn, there was a great increase in fatal cases of *diarrhœa*, this being especially marked in the last two quarters of the year, 143 cases in 1895, as compared with 65 in 1894.

Diphtheria cases increased slightly, 165 against 129 in 1894 and 142 in 1893; but the mortality appears to have decreased, 20.6 against 39 in 1894.

The bacteriological examination of the cases by Dr. Dowson is interesting. He examined 87 cases, finding the bacillus in 70, and as in the remaining 17 no opportunity was given for a second examination, it is possible they may have been true cases of diphtheria. The medical Officer of Health calls attention to the fact that the examination is to confirm, not to make a diagnosis. We commend to the opponents of enlarging the city boundaries Dr. Dowson's remarks on the incidence rate of diphtheria in the various Bristol districts, especially the following:—"Considering the amount of infection that comes into Bristol from surrounding districts, the present system is rather one of keeping disease within certain limits than of preventing its occurrence."

Only two cases of *smallpox* occurred in the city, but two were received from outside authorities for isolation. We are promised a special report later.

Erysipelas, the notification of which the Medical Officer thinks unnecessary, shows a slight increase, as does *scarlet fever*, though there was no epidemic of the latter disease. No case of *typhus* has been known to exist in the city since the 1889-90 winter. The falling off in the number of *typhoid* cases is satisfactory, due no doubt to the better sanitary conditions in general. Dr. Davies does not think that with our present hospital accommodation the time is ripe for the notification of *measles*. Only 8 deaths occurred from this disease in 1895.

There is a slight falling off in the number of deaths from *phthisis*, but the number is still large—in fact more than those caused by the seven principal zymotic diseases.

In comparing Bristol with other large towns our city comes out very satisfactorily; but we feel we have already overburdened this notice with figures, and must refer to the comparative tables and comments thereon for further information.

In Part II. is the Report of the Inspector of *Nuisances*, and we can

only speak in unqualified praise of the way in which this department has been worked. We believe that the public are beginning to recognise that it is to their own advantage to follow the requirements of the various Acts which insist upon their premises being kept in a condition conducive to health, and consequently the work of the department, though it may increase in amount, is rendered easier by the more ready compliance of the owners of workshops and other premises.

The whole Report shows how constantly and zealously our Public Health Department works for the public good. Mr. Rintoul, of Clifton College, as usual gives us his *meteorological observations*. The chief peculiarities of 1895 were the very cold February—the mean temperature of which was 11.51° below the normal—and the extraordinary warm September, the highest temperature of the year being 82.2° on the 24th. The rainfall was slightly below the average.

University College.—The following students have passed examinations:—

University of London.—*Preliminary Scientific* (*M.B.*) *Examination. Entire Examination*—(Second Division), Herbert James Slade, John Elliott Sparks. *Intermediate Examination. Entire Examination*—(First Division), Miles Harris Phillips. (Second Division), William Barrington Prowse; *Excluding Physiology*—(First Division), Thomas Aubrey; *Physiology only*—(Second Division), Arthur Bernard Cridland.

Examining Board in England by the Royal Colleges of Physicians and Surgeons.—*First Examination. Part I. Chemistry and Physics*—Reginald Reynalds, James Christopher Wadmore; *Part III. Elementary Biology*—Reginald Reynalds. *Second Examination. Anatomy and Physiology*—Charles Herbert Welch.

Army Medical Service.—At the recent examination Mr. G. E. F. Stammers was placed first on the list.

Indian Medical Service.—At Netley in July Mr. A. E. H. Pinch's combined marks secured him the third place in the examination. He gained the Herbert Prize of £20, the Prize in Pathology presented by Surgeon-General Sir Joseph Fayrer, Bart., K.C.S.I., the de Chaumont Prize in Hygiene, and the 2nd Montefiore Prize.

Obituary.—It is with much regret we have to chronicle the sad news that cholera has carried off two prominent Bristol School men since our last issue, both of them well known and respected in the services on account of their medical successes, and both of them remarkable for the keen interest they took in all kinds of sport.

Surgeon-Major Cecil Henderson of the Indian Medical Service, fourth son of the late Alfred Henderson of Stoke Bishop, died at Sangor, Central Provinces, India, on July 16th, in his forty-second year, leaving a widow and two children.

Surgeon-Captain John Ernest Trask of the Army Medical Staff, after serving in India for five years (where he was captain of the Poona Gymkhana cricket eleven), took up an appointment in 1895 in the Egyptian Army. During the late outbreak of cholera in the Soudan he was indefatigable in his attention to the sick; he contracted the disease and died at the early age of thirty-four.

SCRAPS

PICKED UP BY THE ASSISTANT-EDITOR.

Septic Surgery.—We have left unwashed those things which we ought to have washed, and we have handled those things which we ought not to have handled, and there is no health in us.—*Medical Record.*

A Scotch Pharmacopœia.—A stranger came to Jedburgh one day,—or, as the natives prefer to call it, "Jeddart." He looked somewhat of a valetudinarian, and he asked one of the inhabitants to direct him to the chemist's shop. "The what, sir?" "The chemist's shop." "Ay, an' whit kin' o' a shop's that na?" "Why, the place where you can buy medicine!" "Eh, sir; we've nae sic shop as that in Jeddart!" "No? What do you do, then, when any one falls ill? Do you take no medicine?" "'Deed, no! We've jist whiskey for the folk an' tar for the sheep, an' hat's a' the feesick we deal in!"

Clinical Records (16).—An American paper is responsible for the following: "What can I do for you, miss?" inquired the clerk in a drugstore. The blushing young woman glanced about her in embarrassment, and then replied: "I want some castor oil." "All right; in just a moment." The clerk moved around behind the counter for a moment, and then went to the soda-fountain. "Do you like soda?" he asked. "Oh, yes, indeed." "What flavouring do you prefer?" "Pine-apple, please." The clerk drew a glass of the fizz, and the young lady drank it. Then the clerk sat down on a stool and commenced to chat with her. She was apparently annoyed, but replied courteously to all his remarks. Finally she said: "If you'll give me the castor oil, I'll go." "Why, you took it in that glass of soda." "Took it in the soda! I didn't want to take it. It was for my little brother." And the clerk wondered why she was indignant.

Serumtherapy.—Dr. Granville P. Conn, pleading for "Conservatism in Medicine and Surgery" before the New Hampshire Medical Society, made some caustic remarks upon the extravagant pretensions put forth on behalf of many modern preparations, and quoted the following lines from the pen of a doctor:

An extract of muscles for rheumatic pains.
A grey-matter extract to nourish our brains.
An extract of teeth for a man that can't chaw.
A maxillary extract to cure lock-jaw.
An extract of ocean to cure *mal de mer*.
A hirsutic extract for those without hair.
A duodenal extract to serve in good turn
In healing the ulcers that follow a burn.
An extract made out of a whole population,
To rescue some housewife from sterilisation.

Medical Philology (XIX.).—In the *Promptorium* occurs the following: "CODE, sowters wax. *Coresina.*" Variant readings are "coode" and "ceresina." Neither Mr. Way, the editor of the *Promptorium*, nor the *New English Dictionary* throws any light on this now obsolete Middle English word for cobblers' wax. It has a medical interest, for Mr. Way gives this note: "Among numerous substances, resin, grease, and herbs, mentioned in the curious directions for making a good 'entreet,' or plaster to heal wounds, occurs 'Spaynisch code.' Sloan. MS. 100, f. 17." Plasters for various purposes were much in favour with some of our forefathers. Many interesting instances can be seen in *Select Observations on English Bodies of Eminent Persons in Desperate Diseases*, written by Shakspere's son-in-law, Dr. John Hall. The 1683 edition of this work has been lately added to the Bristol Medical Library. In the *Journal* for September, 1891, I gave some notes on Dr. Hall's therapeutics.

The New "Photography."—Apropos of the wonderful penetrating powers of the cathodic rays, a young lady, at a recent dinner party in New York, ventured the remark that she understood that these new cathartic rays could go through anything.—*The Journal of the American Medical Association.*

The teller of sensational stories gets along faster with the methods of the X rays than the scientific student does. In a story in the *Strand Magazine* for July, among other inconsistencies occurs an account of the discovery of a diamond set in gold which an Indian servant had stolen from his master and then swallowed in order to prevent detection. "A Man of Science" (!) says:

"I arranged him in such a position that the rays should pass through his body. I turned off the light in the room—my electrical battery worked well, the rays played admirably in the vacuum tube. I removed the cap from the camera, and after an exposure of from seven to ten minutes, felt certain that I had taken a careful photograph."

Sanitary Science.—In the *Journal* for June, 1895, I quoted some answers which had been given at a test-examination for Sanitary Inspectors. Here are a few more taken from an article by Mr. H. Percy Boulnois in the *Sanitary Record*. Asked to define a "Common Lodging House," one candidate replied: "A common lodging-house is a place where those of the public who have not the advantage of a home of their own may pass the night;" and another still more vaguely said: "A common lodging-house is a place where a person can get a night's lodging or more;" what the *more* refers to we must leave to those who have enjoyed a night's lodging in such an abode. It is curious to note how "mixed" some of the candidates get when speaking of the separation of the sexes in common lodging-houses. One of them simply said: "A house used by strangers promiscuously for purposes of habitation;" whilst another defined it as "A house where people, not of the same family, may sleep together under the control of the Local Authority;" whilst a third said: "On no account must opposite sexes be allowed to sleep in the same room in different beds."

Medical Libraries.—Some publishers may be so short-sighted as to think that every book that they put into a medical college library will diminish many-fold that book's sale. This can only be the case when the book is unworthy. The college library, in conjunction with the study of medical literature in the college course, would increase the sale of the best medical literature, and, it is to be hoped, would diminish in some degree the sale of books of low degree now being so persistently exploited upon the medical profession. The systems and text-books of the commercial doctors and cheap publishers are debauching now the taste of the profession. Some radical means must be taken to counteract this influence. The study of medical literature in medical schools is a promising educational advance, and a powerful adjunct to a better professional life. No other means of study gives so much interest to medical and surgical investigation. The broad outlook on life, and on professional life especially, that every young medical man should possess, is best inculcated by a study of the inheritance transmitted through our literature.—*Medical News.*

Obstetrics Home and Foreign (2).—There were some ceremonies anciently used when the lady took her chamber. It is stated that when the Queen of Henry VII. took her chamber in order to her delivery, "the Erles of Shrewsbury and of Kente hyld the towelles, whan the quene toke her rightes; and the torches were holden by knightes. When she was comen into hir great chambre, she stode undre hir cloth of estate; then there was ordeyned a voide of espices and swet wyne; that doone, my lorde, the quenes chamberlain, in very goode wordes desired, in the Quene's name, the pepul there present to pray God to *sende hir the good oure;* and so she departed to her inner chambre." Strutt, iii. 157, from a MS. in the Cotton Library.—Brand's *Popular Antiquities*, ed. Bohn, 1849, vol. II, p. 66.

The Indian squaw is wont to steal off into the woods for her confinement. Alone or accompanied by a female relative or friend she leaves the village, as she feels the approach of labour, to seek some retired spot; upon the banks of a stream is the favourite place the world over, the vicinity of water, moving water, if possible, is sought, so that the young mother can bathe herself and her child, and return to the village cleansed and purified when all is over. In winter, a temporary shelter is erected in the vicinity of the family lodge by those who make the solitude of the forest their lying-in chamber in milder weather. Some of the Sioux tribes, the Blackfeet and the Uncapapas, are in the habit of arranging a separate lodge, generally a temporary one, for the occasion; as also do the Klamaths, the Utes, and others. The Comanches construct a shelter for parturient women a short distance outside of the camp and in the rear of the patient's family lodge.—Engelmann's *Labor among Primitive Peoples*, 1882, pp. 126-7.